

NINTH  
ANNUAL REPORT  
ON THE CONDITION  
OF THE  
COMBINED SANITARY DISTRICT  
OF  
WEST SUSSEX.

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BY  
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Steyning.....	11	Thakeham.....	67	Westbourne .....	117
Horsham .....	33	East Preston .....	83	Worthing .....	138
Petworth .....	51	Midhurst .....	101	Littlehampton .....	150

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# NINTH ANNUAL REPORT

ON THE

HEALTH OF THE COMBINED SANITARY DISTRICT OF  
WEST SUSSEX.

---

RURAL SANITARY DISTRICT OF STEYNING.

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POPULATION, 14,060 IN 1871 ; 16,263 IN 1881. AREA IN  
ACRES, 45,678. No. of HOUSES (1871) 2,659.

DURING the year 1882 the births of 582 children and the deaths of 251 persons were registered ; of the births 316 were male and 266 were female ; of the deaths 129 were male and 122 were female.

There were only 239 deaths registered in the rural sanitary district. The remaining 12 deaths occurred in the Shoreham Workhouse which is outside the district, and these deaths have been distributed among the several parishes whence each inmate came, viz:—Portslade 2, Southwick 1, Lancing 2, Old Shoreham 1, Sompting 1, Bramber 1, Steyning 1, Edburton 1, Woodman-cote 1, and Ashurst 1, in all 12.

In each parish the deaths were as follows:—Preston 0, Patcham 8, West Blatchington 0, Hangleton 1, Portslade 60, Aldrington 9, Southwick 37, Kingston 3, Lancing 23, Old Shoreham 5, Sompting 5, Coombes 2, Buttolphs 2, Bramber 4, Steyning 31, Upper Beeding 8, Edburton 8, Poynings 7, Woodman-cote 2, Henfield 25, Ashurst 6, and Shermanbury 5, in all 251.

The births and deaths in the whole of the district during the past eight years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1875	...	438	29·4	243	16·3
1876	...	465	30·8	242	16·0
1877	...	482	31·4	244	15·9
1878	...	513	33·0	243	15·6
1879	...	499	31·6	196	12·4
1880	...	546	34·1	243	15·2
1881	...	544	33·3	197	12·0
1882	..	582	34·8	251	15·0

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	75	65	140	35	37	72
2nd	„	86	74	160	28	20	48
3rd	„	80	59	139	37	31	68
4th	„	75	68	143	29	34	63
Total ...		316	266	582	129	122	251

On comparing the births in the corresponding quarters of the past four years the mean number born in each quarter varies very slightly.

		1879.	1880.	1881.	1882.	Total.	Mean.
1st Quarter	...	154	144	107	140	545	136
2nd	„	104	122	154	160	540	135
3rd	„	116	156	146	139	557	139
4th	„	125	124	137	143	529	132
Total ...		499	546	544	582	2171	542

The following table shows the birth-rate in the more important parishes and in the rest of the district :—

	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 6 years.
Portslade Parish	32·9	37·8	33·8	39·8	48·8	43·0	39·3
Southwick Parish	31·6	37·1	31·2	37·0	34·7	35·6	34·5
Rest Shoreham S.D.	27·5	29·3	25·0	26·5	27·0	34·5	28·3
Steyning Parish	35·3	25·7	36·5	38·3	27·5	32·2	32·5
Henfield Parish	30·8	28·7	31·8	27·0	25·3	30·0	28·9
Rest Steyning S.D.	33·1	36·2	35·7	37·2	28·7	27·4	33·0
Total ...	31·4	33·0	31·6	34·1	33·3	34·8	33·0

There is here seen to be a great difference in the birth-rate in different localities. Portslade and Southwick are growing places and contain an excessive proportion of young married people and the births are therefore much more numerous than in the rest of the district where the population is nearly stationary. The excess of births over deaths is very marked; in the last four years there were 2,171 births and 887 deaths. The natural increase of population by excess of births over deaths was therefore 1,284. The estimated increase of population during the same period is 940, so that although some localities are increasing, yet in other parts, and more especially in the agricultural portion, there is every year a considerable amount of migration to other districts.



The birth-rate in 1882 throughout England and Wales was equal to 33·7 per 1,000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General a further slight decline from the steadily decreasing rates in the five preceding years, and was lower than the rate recorded in any year since 1858, when it was also 33·7.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter ...	16	9	3	5	17	22	72
2nd „ ...	10	10	1	2	12	13	48
3rd „ ...	17	12	5	3	11	20	68
4th „ ...	15	9	9	2	12	16	63
Total ...	58	40	18	12	52	71	251

On comparing this result with table I, it will be seen that less than one-fourth of the deaths are under one year of age while as many as one-third are sixty years of age and upwards.

In the whole of England and Wales the numbers dying at these two extremes of life are very nearly equal.

Taking the average of the last eight years it appears that the deaths are most numerous in the first quarter, while in the remaining quarters they are very nearly equal.

	1875-78.	1879.	1880.	1881.	1882.	Total.	Mean.
1st Quarter	284	69	75	50	72	550	69
2nd „	245	49	66	41	48	449	56
3rd „	199	44	67	57	68	435	54
4th „	244	34	35	49	63	425	53
Total...	972	196	243	197	251	1859	232

The infant mortality is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	No. of Births.	No. of Dths. under 1 year	Ratio to 1,000 Births.
Portslade Parish.....	168	16	95
Southwick Parish ...	90	12	133
Rest of Shoreham Sub-Dist.....	143	15	104
Steyning Parish.....	54	6	111
Henfield Parish.....	57	4	70
Rest of Steyning Sub-Dist. ....	70	5	71
Whole of District .....	582	58	99

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age, to every 1,000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years. This proportion of infant mortality averaged 146 per 1,000 during the ten years 1872-81, while in this district it is averaged 103 during the seven years 1876-82.

The following table shows the rate of infant mortality in the different localities during the past seven years, and it also shows a gradual improvement in the death-rate at this period of life :—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean of the seven yrs.
Portslade Parish	155	134	168	94	111	92	95	121
Southwick ...	175	194	153	65	108	138	133	138
Rest Shorehm S.D.	99	99	146	95	89	102	104	105
Steyning Parish...	44	85	69	98	125	108	111	91
Henfield Parish ...	87	51	37	50	157	—	70	64
Rest Steyning S.D.	89	72	43	78	106	41	71	71
	—	—	—	—	—	—	—	—
Total...	...116	109	117	82	111	88	99	103

The 58 infantile deaths in 1882 included 2 from measles, 13 from whooping-cough, 3 from diarrhœa, 1 from erysipelas, 1 from meningitis, 6 from convulsions, 8 from lung diseases, 2 from enteritis, 11 from infantile debility, 7 from premature birth, 1 from teething, 1 from suffocation, and 2 from unknown causes.

The deaths from *zymotic*, or catching, disorders were 50 in number, against 27, 39, 15, 35, 12, 46, and 17 in the seven preceding years.

The 50 deaths included 2 from measles, 4 from scarlatina, 8 from diphtheria, 23 from whooping-cough, 3 from enteric fever, 2 from other forms of fever, 6 from diarrhœa, 1 from rheumatic fever, and 1 from erysipelas.

The rate of mortality from these diseases was 3·0 per 1,000 persons living, against a rate of 1·8, 2·5, 0·9, 2·2, 0·7, 2·8, and 1·0 in the seven preceding years.

Throughout England and Wales the annual death-rate from the seven principal *zymotic* diseases alone was 2·64 per 1,000, against a rate of 2·44, 3·30, and 2·24 in three preceding years.

*Small-pox* appeared in this district on several occasions and in two cases it was imported from Hove where the disease had been very prevalent at the time.

Case 1.—Wallace W., 21 years, living at Southwick went to work on January 19th, but felt unwell; the rash appeared in the evening of January 22. He lived in a small two-roomed house; he was married but had no family. He had been vaccinated in



infancy and there were three good marks; his wife had also been vaccinated when a baby, and there were three good marks; she was re-vaccinated on January 23rd, but without effect.

The man had a moderate attack and made a good recovery; he was nursed by his wife and she was not attacked.

On Feb. 20, the house, bedding, &c., were fumigated with sulphurous acid, and there was no spread of the disease; none of the bedding or clothing was destroyed.

Case 2.—Jane T., middle aged, came to a house at Southwick, on March 4th, and fell ill on March 7th; she had previously lived at Hove. On March 8th, she was removed to Shoreham Workhouse and recovered. The house was fumigated on March 10th, and there was no spread of the disorder. She had been successfully vaccinated when young, but not since.

Case 3.—Richard P., 23 years, was taken ill on June 2nd, and the rash of small-pox appeared on June 4th. There was one fair mark on the left arm from vaccination in infancy. He was a policeman and he had been engaged from May 12th to May 20th, in watching a house at New Shoreham where a man resided who died of confluent small-pox on May 19th. At this time Richard P. was re-vaccinated, but without result. Leaving New Shoreham he went to his home at Upper Beeding where his wife and two young children lived and there he fell ill. Mrs. P. was vaccinated when a baby and again when she was about sixteen years of age; she was re-vaccinated on June 6th. Louisa P.  $2\frac{3}{4}$  years, vaccinated when a baby, had one good mark. Ann P., 9 months, had four good marks.

A nurse was obtained for the patients and the other inmates remained in the house. The man had a severe attack but recovered. There was no spread of the disorder. The house was afterwards well fumigated and cleansed, and some of the infected bedding and clothing was burnt. There were two cottages adjoining this house, one on either side, and they were occupied by five adults and four children, but they all escaped the disorder.

Case 4.—David M., 15 years of age, employed on board a fishing smack, came from Newhaven to his home at Southwick, on June 15th; he was poorly the day before and the rash of small-pox appeared on June 16th. This boy, having been at home for several weeks, left Southwick on June 3rd, for a voyage and as he was taken ill on June 14th it is probable he caught the disease before he joined the ship. He had been successfully vaccinated in infancy. In this house there lived his mother and a sister, 17 years of age. The mother was re-vaccinated on June 19th, in three places, but the arm did not rise; there were three old marks. The sister had two good marks; she was re-vaccinated but the arm did not rise. The

boy recovered, and then the house was fumigated with burning sulphur and cleansed; most of the bedding and clothing were burnt; the mother and sister were not attacked.

Case 5.—Mr. F. lived next door to the above case; he had been vaccinated when a baby and there were three good marks; he was now vaccinated but without effect. On July 4th, he had several spots out on his face and he probably had a mild attack; he was able to walk about all the time. His wife had three good marks on her arm; she was now re-vaccinated in three places successfully and escaped the disorder. There were no other inmates of the house.

Cases 6 and 7.—Mrs. T., 54 years of age, living at Southwick, next door to case 4, felt poorly on July 3rd., and on the morning of July 9th, the rash of small-pox appeared. She had been vaccinated when a child but not since.

Her husband was inoculated when a boy, and did not have the disorder now. Her son James, 15 years, had a very mild attack at the same time; this boy was vaccinated when a baby and there were three good old marks. There were no other persons living in the house. Both these patients recovered and then the house was well disinfected and cleansed.

Case 8.—Jane P., 14 years of age, fell ill on July 7th, and the rash of small-pox appeared on July 9th. She lived with her parents at Southwick, and there were two other grown up children and one infant in the house. Jane P., was vaccinated when a baby but the arm did not rise. The mother remained to nurse this girl but the other inmates left. The patient had a severe attack but recovered. The mother was successfully vaccinated when a baby but not since; she had one or two spots on her face while nursing her daughter, but otherwise she remained quite well. The house was disinfected on August 16th, limewashed and cleansed. Some of the infected bedding and clothing was burnt. This girl probably caught the disease from Case 6, as she and Mrs. T's. daughter were friends.

The outbreak now terminated. The last four cases all seemed due to Case 4, and the first case of this series at Southwick probably caught the disease at New Shoreham where just previously there had been three or four deaths from small-pox. The four primary cases occurred in four houses where there dwelt five other adults and two young children; all these exposed persons escaped the disorder.

By means of the fourth case the disease spread to three other houses so that four more persons were attacked while six other adults and one infant in these houses were exposed to the infection but escaped. In each case re-vaccination was advised, but some of the cases no successful result ensued. No case proved fatal and each person had been successfully vaccinated in infancy.



The patients were isolated and in fact the neighbours were two frightened to go near the houses.

The Board of Guardians supplied, when needed, all articles of food, &c., in the way of relief, and the Sanitary Authority gave compensation for any articles of bedding or clothing that were destroyed. The disinfection was carried out by burning sulphur freely in the various rooms of the cottages and thus exposing the rooms and their contents to the vapour of sulphurous acid for six hours. The houses were then limewashed and cleansed. No case has ever occurred here of infectious disease breaking out again in a house when this process has been carried out.

*Scarlatina* caused four deaths, three at Portslade and one at Aldrington which is the adjoining parish.

Case 1.—James W., with his wife and four young children came to Portslade from London, on August 24th, on a visit to some friends. Edward W.,  $3\frac{1}{2}$  years old, was taken ill midday on August 24th while passing through Brighton; the rash appeared in the evening of the same day and he died on August 28th.

Frederick W.,  $6\frac{3}{4}$  years old, fell ill on September 4th, and died on September 11th of scarlet fever.

Lily,  $1\frac{1}{2}$  year old, fell ill on August 28th, but she recovered.

James,  $5\frac{1}{2}$  years old, escaped the disease although he had never had it. Each of the parents had scarlet fever in childhood.

There was another family in this house, consisting of a man, wife, and three young children, but they all escaped.

But the disease spread to two other houses in this row.

Case 2.—Benjamin N., lived in a cottage next door to the above case, with his wife and four children.

Edith N., 4 years old, fell ill on Sept. 19th and recovered.

Henry N., 7 years old, never had had the disease, nor did he have it now. The other inmates escaped but they had had scarlet fever many years ago.

Case 3.—On the other side of the first infected house there lived a man, Henry T., with his wife and three young children. Minnie T.,  $1\frac{1}{2}$  years old, fell ill on Sept. 16th; William T., 5 years old, fell ill on Sept. 22; Helena T., 3 years old, fell ill on Sept. 23rd, and Mrs. T. had a bad throat, though without a rash, on Sept. 20th; she, however, had had scarlet fever when a child. All these children probably caught the disease from the first infected house where the imported case broke out. Each house was well fumigated and cleansed and there was no further spread of the disease.

This fever appeared in different parts of the district several times during the year, but there was no prevailing epidemic at any time.

*Enteric Fever.*—The deaths from enteric fever were in each case due to sanitary defects whereby sewer gas entered the house, or was inhaled by the patient. In no case did the disease spread beyond the person first attacked and the defects were at once remedied by the owner.

One case will serve to illustrate how enteric fever may arise in a country place. A man, retired from business, built for himself a neat villa in an isolated position. On the first floor and close to his bedroom, there was a w.c. which communicated with the open air by a small window. The closet was furnished with a container and a D. trap; it was supplied with water from a tank which was filled by a pump when needful. The sink-pipe went directly from the sink to the drain and when the bell-trap was removed foul air entered the house and this was often complained of. The soil-pipe was not ventilated so that it was always full of foul gas ready to enter the house at any time.

The closet soon got out of order, and the water supply was very defective, sometimes there being no water in the tank at all. The man in a short time fell ill with enteric fever and a little girl, who acted as a servant, was also attacked. They recovered in due time and the wife who was the only other inmate of the house escaped altogether. In towns and populous places drains and sewers must exist, but in country houses all drains and closets should, if possible, be outside the dwelling. Enteric fever rarely breaks out in a cottage; it generally appears in a house which is furnished with every "modern improvement."

*Diphtheria* caused eight deaths but there was no epidemic of this disorder; there were four deaths at Portslade, one at Lancing, and three at Henfield.

In one case a man lived in a new cottage in an isolated position, with his wife and six young children; five of these fell ill with diphtheria and of these three died; one child escaped altogether. Ada H., 7 years, died on October 29th, after four days' ill; Annie H., 6 years, died on Nov. 8th, after fourteen days' illness, and Louisa H., 8 years, died on Nov. 16th, after a fortnight's illness. The house was well built and there were no sanitary defects. The weather at the time was very wet and the cottage was built on a clay soil. There was no history of contagion and there were no other cases in the neighbourhood. In previous reports the connection between dampness and diphtheria has been often pointed out.

There were thirteen deaths returned as "not certified" out of a total of 251; female, 3 months, suffocation accelerated by congenital syphilis of the nose; female, 25 days, probably bronchitis; male, 1 year, whooping-cough, convulsions; male, 22 months, convulsions, most probably from teething; male, seven



months, measles ; female, fifteen months, convulsions ; male, four months, convulsions ; male, three years, scarlatina ; male, two years, convulsions ; male, one day, premature birth ; male, one hour, premature birth ; female, ten minutes, probably suffocation ; male, three months, probably convulsions. Ten of these deaths were registered in the Shoreham Sub-District and three in the Steyning Sub-District.

There were two deaths of children born out of wedlock in the Steyning Sub-District ; female, eight weeks, broncho-pneumonia, certified ; male, nineteen months, tabes mesenterica, exhaustion, certified. The returns from the Shoreham Sub-District give no information on this point.

In twelve cases inquests were held ; male, thirteen years, accidentally run over by horse and cart ; female, nine weeks, suffocated while in bed with its mother ; male, fifty-nine years, apoplexy ; female, thirty-eight years, natural causes, to wit, pressure of clots of blood on brain ; male, one year, natural causes, to wit, congestion of brain produced by teething ; female, thirty-four years, embolism ; male, fifty-nine years, found drowned ; male, forty-nine years, drowned ; male, eighty-two years, accidental fall in garden ; male, eighty-two years, shock to system sustained by accidental fall ; female, eighty-eight years, shock to system from accidental fracture of thigh by falling out of bed, male, thirty-two years, found drowned in a pond.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

**LOCAL GOVERNMENT BOARD INQUIRY.**—An inquiry was held at Hove, on March 1st, by Mr. Arnold Taylor, into the proposal of the Hove Commissioners to borrow £2,070 for the purchase of a site for an infectious hospital and for other purposes. The inquiry affected this district inasmuch as the Commissioners proposed to erect an infectious hospital on the Downs, near the populous village of Portslade. The necessity for such a building had been felt very much during the recent epidemic of small-pox at Hove, and the Sanitary Authority had been unable to obtain any land for such a purpose within their district. The Steyning Rural Sanitary Authority made no objection to the proposal, but the inhabitants of Portslade were strongly

opposed to it. Each side was represented by counsel. The site selected was an elevated position on the Downs and close to a road which is a favourite resort of the Portslade people. This spot is about three-and-a-half miles from Hove and it is approached by three roads, two of which are very rough and hilly and are, in fact, only accommodation roads to farms, while the third road passed directly through the old village of Portslade. Two of the roads would probably be impassable in the winter, and in any case the distance is very great for a person to travel who is suffering from an acute infectious disorder. The chief argument used by the Hove Authority for going outside their district was the difficulty of obtaining a site within their own area, and the depreciation in the value of building land which might ensue, for the price of land in Hove varied from £2,000 to £10,000 per acre. The result of the inquiry was that the Hove Commissioners were successful in obtaining the sanction of the Local Government Board to borrow the money for the purchase of the site.

The following tables show in a statistical form the condition of the district during the past eight years.

Table I. shows the Deaths at various groups of ages and the proportion they bear to 1,000 deaths.

Table II. shows the Deaths and Death-rate in each year from zymotic diseases.

Table III. shows the Deaths and Death-rate from all causes and from various causes in each parish of the district during the past eight years.

Table IV. shows the Deaths from Zymotic diseases in each Parish in the past eight years.

Table V. shows the Deaths and Death-rate from all causes and from various causes in different localities in the last eight years.

The *zymotic* death-rate, was 326 in 1851-60; 342 in 1861-70, while in 1875-82 it was 192 per 100,000 persons living.

The *phthisis* death-rate, was 197 in 1851-60; 201 in 1861-70, while in 1875-82 it was 162 per 100,000 persons living.

The *lung-disease* death-rate, was 189 in 1851-60; 192 in 1861-70, while in 1875-82 it was 207 per 100,000 persons living.

The death-rate from *heart-disease* during the last eight years has been on the average 108 per 100,000 persons living.

Table A shows the mortality in 1882 classified according to diseases, ages, and localities.

Table B shows the new cases of sickness among the pauper population of the district during the past year.

The *general* death-rate was 1597 in 1851-60; 1614 in 1861-70, while in 1875-82 it was 1485 per 100,000 persons living.



## STEYNING RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875 .....	243	65	11	11	15	48	93
1876 .....	242	54	40	9	12	60	67
1877 .....	244	53	21	10	11	75	74
1878 .....	243	60	35	8	11	49	80
1879 .....	196	41	18	6	10	53	68
1880 .....	243	61	28	15	13	47	79
1881 .....	197	48	14	3	10	44	78
1882 .....	251	58	40	18	12	52	71
Total .....	1859	440	207	80	94	428	610
In 1000 Deaths...	1000	237	111	43	51	230	328

TABLE 2.—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other							
1875	::	::	::	5	7	::	2	2	8	::	3	::	::	27	1·8
1876	::	3	12	4	3	::	3	2	11	::	::	::	1	39	2·5
1877	::	::	3	2	1	::	1	1	3	::	2	::	2	15	0·9
1878	::	1	::	2	11	2	::	::	16	::	1	::	2	35	2·2
1879	::	::	1	1	2	::	3	1	1	::	2	1	::	12	0·7
1880	::	8	::	::	12	::	3	::	20	::	1	::	2	46	2·8
1881	1	::	::	2	::	::	4	::	7	::	2	1	::	17	1·0
1882	2	2	4	8	23	::	3	2	6	1	1	::	::	50	3·0
Tl.	1	14	20	24	59	2	19	8	72	1	12	2	7	241	1·9

## STEYNING RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate from all causes in the Steyning Rural Sanitary District.

PARISH.	Population in middle of period.	Mean annual Death-rate per 1,000, all ages.	Deaths from all causes			
			1875-79	1880.	1881.	1882.
Shoreham Sub-District.						
Preston ... ..	10	12·5	...	..	1	..
Patcham ... ..	840	10·8	41	10	14	..
W. Blatchington	56	8·9	2	1	1	..
Hangleton ... ..	72	10·4	4	...	1	..
Portslade ... ..	3382	14·3	227	59	41	6
Aldrington ... ..	100	26·2	5	3	4	..
Southwick... ..	2457	15·5	203	36	30	3
Kingston ... ..	258	19·8	31	5	2	..
Lancing ... ..	1280	12·3	72	21	10	2
Old Shoreham	257	12·6	18	1	2	..
Sompting ... ..	700	13·2	51	10	8	..
Coombes ... ..	75	15·0	7	...	...	..
Buttolphs ... ..	90	16·6	10	...	..	..
Steyning Sub-District.						
Bramber ... ..	184	8·8	7	2	...	..
Steyning ... ..	1670	16·8	137	28	29	3
Upper Beeding	600	17·7	57	8	12	..
Edburton ... ..	330	13·2	18	6	3	..
Poynings ... ..	310	14·5	17	5	7	..
Woodmancote ...	340	10·6	17	7	3	..
Henfield ... ..	1884	16·7	176	29	22	2
Ashurst ... ..	380	15·4	30	9	2	..
Shermanbury	370	17·2	38	3	5	..
Whole District...	15645	14·8	1168	243	197	25

TRICT, 1875-82.

causes and from various causes in each Parish  
years.

in the eight years.	Mean annual number of deaths.	Total deaths in eight years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
1	0.1	...	...	...	...	...	...
73	9.1	7	9	6	104	134	89
4	0.5	2	...	...	446	...	...
6	0.7	...	2	2	...	347	347
387	48.3	83	34	55	306	125	203
21	2.6	5	...	3	625	..	375
306	38.2	41	30	42	208	152	213
41	5.1	6	4	5	290	193	241
126	15.7	15	11	16	146	107	156
26	3.2	3	3	2	145	145	97
74	9.2	5	9	9	89	160	160
9	1.1	...	3	...	...	500	...
12	1.5	1	1	3	139	139	416
13	1.6	1	3	1	67	203	67
225	28.1	23	26	44	172	194	329
85	10.6	9	11	15	187	229	312
35	4.3	5	3	1	189	113	38
36	4.5	2	9	6	81	363	242
29	3.6	2	9	3	73	330	110
252	31.5	21	27	32	139	179	212
47	5.8	3	5	10	98	164	328
51	6.3	7	4	5	236	135	169
359	232.3	241	203	260	192	162	207

## STEYNING RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 8 years, 1875-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
Preston .....	90	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Patcham .....	890	..	..	..	..	..	..	..	..	..	..	..	..	..	2
W. Blatchington	60	1	..	..	..	..	..	..	..	..	..	1	..	..	2
Hangleton .....	77	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Portslade .....	3900	..	4	13	6	23	..	4	1	28	1	1	1	1	83
Aldrington .....	294	..	1	1	..	..	..	..	3	3	..	3	..	..	5
Southwick .....	2525	..	4	3	3	8	..	..	3	16	..	2	..	..	41
Kingston .....	264	..	..	..	1	1	..	..	..	1	..	1	..	..	6
Lancing .....	1380	..	1	..	2	7	..	1	..	3	..	1	..	..	15
Old Shoreham ..	245	..	..	..	..	..	..	1	1	1	..	..	..	..	3
Sompting .....	680	..	..	..	..	1	..	1	1	2	..	..	..	..	5
Coombes .....	70	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Buttolphs .....	95	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Bramber .....	188	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Steyning .....	1675	..	1	..	5	6	..	4	..	6	..	1	..	..	23
Upper Beeding ..	615	..	..	..	3	1	..	2	1	2	..	1	..	..	9
Edburton .....	345	..	1	..	1	1	..	..	..	..	..	1	..	1	5
Poynings .....	318	..	..	..	..	..	..	1	..	..	..	..	..	1	2
Woodmancote ...	350	..	..	1	..	..	..	..	..	..	..	..	..	1	2
Henfield .....	1900	..	..	2	3	5	..	3	1	2	..	2	..	2	21
Ashurst .....	376	..	1	..	..	1	..	..	..	1	..	..	1	..	3
Shermanbury ...	363	..	1	..	..	3	..	..	..	..	..	..	1	1	7
Whole District...	16700	1	14	20	24	59	2	19	8	72	1	12	2	7	241

Steyning Sub-District.      Shoreham Sub-District.



## STEYNING RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82,

LOCALITY.	Population in middle of period.	Deaths during the 8 years 1875-82, from					Annual Death-rate per 100,000 living from				
		All Diseases	Zymotic Disease.	Phthisis,	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis,	Lung Disease.	Heart Disease.
Portlade Parish.....	3382	387	83	34	55	23	1430	306	125	203	85
Southwick Parish .....	2457	306	41	30	42	20	1556	208	152	213	101
Rest of Shoreham Sub-dist.	3738	393	44	42	46	28	1314	147	140	154	93
Steyning Parish.....	1670	225	23	26	44	10	1684	172	194	329	74
Henfield Parish .....	1884	252	21	27	32	30	1672	139	179	212	199
Rest of Steyning Sub-dist.	2514	296	29	44	41	25	1471	144	218	203	124
Whole District .....	15645	1859	241	203	260	136	1485	192	162	207	108
In 1875 .....	14880	243	27	23	53	24	1633	181	154	356	161
In 1876 .....	15090	242	39	24	38	19	1603	258	159	251	125
In 1877 .....	15310	244	15	37	25	16	1593	98	241	163	104
In 1878 .....	15530	243	35	30	38	12	1564	225	194	244	77
In 1879 .....	15760	196	12	29	30	17	1243	76	184	190	107
In 1880 .....	15990	243	46	21	37	14	1519	287	131	231	87
In 1881 .....	16315	197	17	14	19	16	1207	104	85	116	98
In 1882 .....	16700	251	50	25	20	18	1503	300	150	120	108



EYNING, classified according to Diseases, Ages, and Localities, and showing the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

[illegible]



TABLE B.—Showing the New Cases of Sickness coming to the knowledge  
District of STEYNING, classified

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Portslade Parish	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... 1	2 ..... 1	..... ..... .....	..... ..... .....	..... ..... .....
Southwick Parish.	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Rest of Shoreham Sub-Dis.	Under 5 ..... 5 upwds	..... ..... .....	2 ..... 2	..... ..... .....	..... ..... .....	..... ..... .....	4 ..... 3
Steyning Parish.	Under 5 ..... 5 upwds	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Henfield Parish.	Under 5 ..... 5 upwds	..... ..... .....	..... ..... .....	3 ..... 3	..... ..... .....	..... ..... .....	2 ..... .....
Rest of Shoreham Sub-Dis.	Under 5 ..... 5 upwds	..... ..... .....	1 ..... 2	4 ..... 8	..... ..... .....	..... ..... .....	4 ..... 2
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Totals .....	Under 5 ..... 5 upwds.	..... ..... .....	3 ..... 5	9 ..... 12	..... ..... .....	..... ..... .....	10 ..... 5

Sources of information :—In Workhouse and Workhouse Infirmary patients of Workhouse

Medical Officer of Health, during the year 1882 in the Rural Sanitary  
 according to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.									
Evers.									
Typhoid	Other or	Diarrhoea and	Dysentery	Cholera	Rheumatic	Erysipelas	Pyæmia	Puerperal	Ague
0	21	22	23	24	25	26	27	28	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record
.....	.....	1	.....	.....	2	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	1	.....	.....	1	.....	.....	.....	.....
.....	.....	1	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	2	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	5	.....	.....	3	.....	.....	.....	.....

Ang Out-door Paupers, 389. In-patients of Worthing Infirmary, 2. Out-  
 mary, 48.





## RURAL SANITARY DISTRICT OF HORSHAM.

POPULATION, 14,131 IN 1871; 15,487 IN 1881. AREA IN ACRES, 45,678. NO. OF HOUSES (1871) 2,781.

DURING the year 1882, the births of 487 children, and the deaths of 198 persons were registered; of the births, 273 were male and 214 were female; of the deaths, 106 were male and 92 were female.

There were 206 deaths registered as occurring in the Rural Sanitary District, but eight of these deaths belonged to the Horsham Urban Sanitary District, although they died in the Union Workhouse, which is situate in the rural portion of the Union. There were during the year 21 deaths in the Workhouse; of these, eight did not belong to the district, and the remaining 13 have been distributed among the various parishes whence each inmate came, viz., Horsham 2, Lower Beeding 2, Ifield 2, Nuthurst 1, Slinfold 4, Itchingfield 1, and Billingshurst, in all 13.

In each parish the deaths were thus distributed: Horsham (part of) 11, West Grinstead 19, Shipley 17, Nuthurst 7, Horsham (part of) 18, Lower Beeding 17, Ifield 29, Crawley 8, Rasper 7, Warnham 9, Slinfold 13, Itchingfield 11, Rudgwick 13, and Billingshurst 19, in all 198.

The births and deaths in the whole of the district during the past seven years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1876	...	449	31·3	243	16·9
1877	...	455	31·5	182	12·6
1878	...	490	33·5	204	13·9
1879	...	499	33·8	241	16·3
1880	...	444	29·0	217	14·1
1881	...	503	32·4	197	12·7
1882	...	487	31·0	198	12·6

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	75	51	132	29	24	53
2nd	„	65	49	114	24	23	47
3rd	„	64	49	113	28	20	48
4th	„	69	59	128	25	25	50
Total	...	273	214	487	106	92	198

The births appear to be most numerous in the first and third quarters of the year :—

	1879.	1880.	1881.	1882.	Total.	Mean.
1st Quarter ...	118	112	135	132	497	124
2nd „ ...	123	104	118	114	459	115
3rd „ ...	127	124	136	113	500	125
4th „ ...	131	104	114	128	477	119
Total ...	499	444	503	487	1933	483

The following table shows the birth-rate in each sub-district during the past six years :—

	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 6 years.
South Sub-Dis ..	31·2	33·1	34·5	30·7	34·7	32·9	32·8
North Sub-Dis...	29·7	34·7	36·0	25·1	30·8	30·4	31·1
West Sub-Dis...	34·6	32·0	29·3	34·3	32·9	30·3	32·2
Total ...	31·5	33·5	33·8	29·0	32·4	31·0	31·8

The rate in each sub-district varies very slightly.

The population is chiefly an agricultural one and the increase in numbers is not very great. The excess of births over deaths is considerable; in the last four years there were 1933 births and 853 deaths, so that the natural increase of population was therefore 1080. The estimated increase during the same period is 938 so that there is a slight migration going on to other districts.

The birth-rate in 1882 throughout England and Wales was equal to 33·7 per 1000 persons estimated to be living in the middle of the year; it showed, according to the Registrar-General, a further slight decline from the steadily decreasing rates in the five preceding years, and it was lower than the rate recorded in any year since 1858, when it was also 33·7.

The deaths at various groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter ...	7	7	5	2	15	17	53
2nd „ ...	7	6	7	4	6	17	47
3rd „ ...	12	1	1	3	14	17	48
4th „ ...	15	1	1	3	11	19	50
Total ...	41	15	14	12	46	70	198

On comparing this result with Table I, it will be seen that one-fifth of the deaths are under one year of age, while more than one-third are 60 years of age and upwards.

Taking the average of the last seven years, it appears that the deaths are most numerous in the first and second quarters of the year :—

	1876-78.	1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	178	72	57	46	53	406	58
2nd „	184	68	53	59	47	411	59
3rd „	137	55	59	57	48	356	51
4th „	130	46	48	35	50	309	44
Total...	629	241	217	197	198	1482	212

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Dths. under 1 year	Ratio to 1,000 Births.
South Sub-District.....	135	14	103
North Sub-District .....	232	21	90
West Sub-District .....	120	6	50
Whole of District .....	487	41	84

Throughout England and Wales there were, during the past year 141 deaths of infants under one year of age to every 1000 children born, against 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years.

The following table shews the rate of infant mortality in each sub-district during the past seven years :—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 7 yrs.
South Sub-Dis. ...	72	71	89	100	122	91	103	92
North Sub-Dist...100	82	73	78	102	65	90	90	84
West Sub-Dis. ...165	81	80	148	44	92	50	94	
	109	79	79	100	90	79	84	88

The 41 infantile deaths in 1882 included one from measles, one from scarlet fever, two from whooping-cough, one from vaccinia, five from convulsions, eight from lung diseases, one from enteritis, eleven from debility after birth, ten from premature birth, and one from malformation.

The deaths from *zymotic*, or catching, disorders were 17 in number.



There were 3 deaths from measles, 1 from scarlatina, 5 from diphtheria, 2 from whooping-cough, 1 from enteric fever, 1 from a doubtful form of fever, 1 from diarrhoea, 1 from rheumatic fever and 2 from erysipelas.

In the six preceding years there were respectively 27, 6, 14, 21, 26, and 22 deaths from this group of disorders.

The rate of mortality from these diseases during the past year was 1.0 per 1,000 persons living, against a rate of 1.8, 0.4, 0.9, 1.4, 1.6, and 1.4 in the six preceding years.

In the past seven years there have been altogether 133 deaths in this class, or a mean annual rate of 1.2 per 1,000.

*Small-pox* broke out at Southwater during the year. Frederick T., 24 years of age, was taken poorly on Feb. 11th, and the rash of modified small-pox appeared on Feb. 13th. He was employed as a guard on the railway, and he travelled between Worthing and London. On Feb. 11th he visited his mother at Southwater, returning to Worthing on the evening of the 12th, and the following evening he went back to Southwater. He had a mild attack and recovered.

At this time there dwelt at the cottage at Southwater, besides the mother, Henry T., 27 years, Nancy T., 13 years, Albert T., 10 years, and Edith T., 5 years. The children were at once sent away, leaving the mother to nurse Frederick T. As the case was considered a doubtful one by the medical men who saw him, the children returned home on Feb. 25th, and thus proper isolation was not carried out.

Nancy, Albert, and Edith left their home on Feb. 14th, and returned on Feb. 25th. Henry went away on Feb. 14th and came back on Feb. 28th; he was taken ill on March 4th, and the rash appeared on March 7th; he had a mild attack and recovered. The time of incubation cannot be made out as Henry had seen his brother during the time he was lodging away. The inmates had been advised to be re-vaccinated, but this was not done then. After Henry had fallen ill the mother and three children were re-vaccinated, but not even then until some days had elapsed.

Mrs. T. was vaccinated in infancy; re-vaccinated March 14th in two places, no result. Nancy T., four good old marks; re-vaccinated on March 14th, in two places successfully. Albert T., four good old marks; re-vaccinated on March 21st, successfully. Edith T., five good old marks; re-vaccinated on March 21st, successfully. Both the patients had been vaccinated successfully in infancy.

Frederick T., the first case, went away to a relation's on Feb. 28th, and stayed there until March 8th, when he went to another house and remained until March 11th, when he returned to work. No inmates of the houses at which he visited caught

the disorder ; in each case the rooms, bedding, &c., were disinfected.

From this it would appear that Frederick T., ceased to be infectious a fortnight after the first appearance of the rash.

In Mrs. T's, case the re-vaccination was unsuccessful ; on March 22nd she had a headache and on March 23rd, she had a few spots on her body and face, but she went about her work in the house as usual. The three younger children escaped the disorder.

The house was disinfected on April 6th, and some of the bedding and clothing was burnt.

There was no further spread of small-pox in this district, but it broke out in an adjoining village in the following manner.

On Sunday, March 12th, a man and two women came over from Cowfold to see a friend at Southwater. As the friend was not at home the women called at Mrs. T's. house and rested there half-an-hour, while the man went to another house near to. Both these women had small-pox, but the man escaped. The women went back to Cowfold the same afternoon and they were not exposed to infection for more than half-an-hour ; one failed on March 22nd, and the other on March 24th ; in each case the rash appeared on March 25th. Cowfold is not in this district, but the medical man who attended these cases was kind enough to give me the above dates by which the period of incubation can be ascertained. The women recovered and there was no further spread of the disorder.

Thus from the original case the disease spread to four other adults who all had it mildly, while the three young children who were also exposed to the contagion escaped altogether.

*Scarlet fever* only caused one death, but it was very prevalent in the district, and especially so at Warnham where the disease spread throughout the village in the autumn. The school was closed and the children in an infected house were kept at home, but all precautions seemed of little avail. The cases were very mild and several recovered without a medical man being called in.

*Enteric fever* caused one death, but this was an imported case.

The girl was in service at Croydon and when she fell ill she was sent to her home in Slinfold when she was found to be suffering from enteric fever ; she never seemed to get over the exhaustion produced by the journey, and she died a few days afterwards.

Many cases of this disease prove fatal by being moved long distances ; as soon as the nature of the disorder is manifest perfect rest should be enjoyed. The disease did not spread any further. There were no outbreaks of any other zymotic disease which call for any special remark.



**POLLUTION OF THE RIVER ARUN.**—The River Arun became again polluted during the summer, in consequence of the sewage flowing into it from the Horsham sewage farm. A description of the nuisance has been published in previous reports. The river Arun flows in an uninterrupted stream to a spot known as Floodgates; there is here a small branch which supplies Broadbridge Mill owned by Mr. Stanford. In dry weather nearly all the water in the river Arun runs along this small stream to supply the Mill and only a small quantity escapes into the ordinary channel of the river. The water, in fact, is held up by the floodgates in order that the Mill may be supplied. The effluent from the sewage farm enters the stream above the floodgates and in flowing through the Mill it causes the nuisance complained of by Mr. Stanford. In consequence of legal proceedings being taken the Horsham Local Board made a new outfall in September whereby the sewage from the farm enters the river at a spot just below the Floodgates and therefore below the stream which flows through Mr. Stamford's mill. In this way the nuisance is abated so far as the mill is concerned and the effluent is of a better quality than heretofore. There is still some pollution of the river Arun, but as there are no houses near it, there have been no more complaints at present.

**POLLUTION OF A STREAM.**—St. Julian's Priory is situated in the parish of West Grinstead; it is an institution which receives above a hundred children of the lowest order and it provides them with a kind of industrial education so as to fit them for obtaining a living in after years. A nuisance has long been complained of in consequence of the sewage from the Priory polluting a small stream which eventually flows into the river Adur. The Priory grounds are not of sufficient extent for the sewage to be utilised there and therefore a tank was made for receiving the overflow from the cesspits and from this tank the sewage was pumped into a cart and removed at intervals. But from this large tank there was an overflow pipe into a ditch which ran close by and this overflow was the cause of the nuisance.

In wet weather a good deal of water flows along this ditch and there is no nuisance at all, but in dry seasons the ditch is at times offensive and the more so as it runs beneath a road which is a good deal frequented; the ditch then passes through a copse and after a course of about a third of a mile it joins the river Adur. The Horsham Rural Sanitary Authority having resolved to prosecute, proceedings were taken before the Horsham county Court, on July 25th, under Clause 3, of the Rivers Pollution Act, 1876. This clause provides that "every person who causes to fall or flow, or knowingly permits to fall or flow, or to be carried into any stream, any solid or liquid sewage



matter, shall be deemed to have committed an offence against this Act." After evidence had been heard on each side the County Court Judge adjourned the case for four months in order to give the defendants an opportunity to abate the nuisance.

In the course of the autumn the overflow pipe was removed and the sewage overflow was passed into another tank containing charcoal. At the same time rain water was prevented from flowing into the drains, in order that the quantity of sewage might be kept as small as possible and arrangements were made for pumping the contents of the tank into a cart and applying the sewage to land.

The case came again before the County Court, in November, when the Judge was informed that the nuisance had been abated to the satisfaction of the Sanitary Authority and so the matter ended.

The Judge awarded costs to the Sanitary Authority.

**IFIELD AND CRAWLEY DRAINAGE.**—An inquiry was held by Major Tulloch on February 24th, as to whether the Local Government Board should issue a provisional order to empower the Horsham Rural Sanitary Authority to put into force compulsory powers for the purpose of obtaining land for the disposal of the sewage of Crawley and Ifield. A good deal of opposition was raised by the ratepayers and on their behalf a legal objection was put forward as to the notice convening the meeting.

Under the Land Clauses Consolidation Acts the local authority before putting in force any of the powers of the said Acts, with regard to the purchase and taking of lands otherwise than by agreement, shall publish once at the least in each of three consecutive weeks in the month of November, in some local newspaper circulated in their district, an advertisement describing shortly the nature of the undertaking in respect of which the lands are proposed to be taken, naming a place where a plan of the proposed undertaking may be seen at all reasonable hours, and stating the quantity of lands that they require. The advertisement was duly inserted, but it was contended that the notice published was not in accordance with the Act, inasmuch as the advertisement was ordered to be inserted by the Chairman of the Rural Sanitary Authority, and not by three members of the Authority as required by the Act. This objection proved fatal to the inquiry, and the matter was delayed for another year. In the course of the summer the Worth Lane ditch was cleansed at intervals, and a filter bed was erected at the outfall, but it turned out to be of very little use. The following is the report of the engineer, Mr Kelsey, which was sent in to the Horsham Rural Sanitary Authority on May 2nd, 1881.

"In accordance with the instructions received from the Guardians for the Parishes of Crawley and Ifield on the occasion of the visit by your Chairman to the above parishes, on the 3rd of December last, when this matter was discussed, and a cursory survey made of the ground surrounding the town and land in the direction of which it was then proposed to take the sewage and also the field intended for the proposed outfall, that I should take the necessary levels and complete my information of the water shed, with a view of laying out a complete system of drainage with one outfall only, if possible, and report fully to you thereon. This I have now much pleasure in doing.

"I find that sewers have from time to time been laid in various parts of the town as circumstances arose for their necessity, without regard to any combined system of drainage.

"The position of these I have had carefully taken, and they are shown on the plan accompanying this report in blue lines. The dotted lines, also in blue, show open ditches that convey sewage matter.

"From enquiries made, I find that most of the houses south of the Railway have cesspools attached to them with overflows direct into the drains. Those below and north of it have cesspools also, but in few instances only are they connected with the sewers, having overflows into the nearest ditch or pond, the sink and roof water in most cases having direct access to the sewers, which also receive from the several yard and road gratings all the surface water and road detritus.

"On an examination of the plan it will be observed that the sewage of nearly the whole of that part of the town south of the Railway, and the greater portion of it south of the road leading to Three Bridges in an easterly direction, and that to Horsham and Ifield in a westerly direction, is conveyed in either pipe or brick drains to a point in the former road and discharged into a ditch on the south side of it, a little north-east of the Monastery and about 350 feet east of the Parish Church, thereby causing a nuisance here of a very offensive and serious nature in the summer months.

"The north part of the town being on a much lower level, has other outfalls or places where the sewage is discharged.

"One of these is situated on the west side of the field 701 on the Ordnance map, and receives the sewage of a few houses south of the Railway together with that part of the town known as West Green, where building operations are in active progress, which is conveyed part of the distance in pipes and part in open ditches; also all the houses north of the Ifield and Horsham Road, and those on the west and part of the east side of the main road through the town below the above named roads.



" This outlet appears to act at present as a kind of overflow to the sewer which is carried down the main road, and empties into an open ditch on the east side of the field No 49 on the map, which after running at the back of Albert Cottages is again brought into pipes for a short distance by the Gasworks, and then discharges into the open ditch and flows down in the direction indicated by arrows on the plan. and eventually reaches the brooks known as Crawter's Brooks, by a branch which crossed Thusknow Lane at a distance of 1,150 feet from the main road, and takes the greater portion of this sewage.

" It was in this direction, viz., the fields marked 26, 34, and 35 on the Ordnance map, that land was originally proposed to be acquired to receive this sewage and that which now goes into the Worth Lane ditch, but from an inspection made on the 59th of May, 1879, with a committee of gentlemen interested in this matter, it was quite evident as the fields were then flooded and the ditches full, with scarcely any perceptible flow, that this was not a suitable site for the proposed outfall and works incident thereto.

" Finding that the land in this direction had not the fall required, and firmly believing that of all the various systems adopted for the carriage and disposal of sewage matter, the pipe system by gravitation delivered on the land suitably prepared for the purpose, is the best when this can be obtained and effected, I proceeded to examine that on the west side of the turnpike road, and have carefully gone over the whole of the ground between the Horsham and Ifield Road by West Green, and Langley Lane, north of it, had levels taken in various places at the back of the Town Barn, the Hut, Jordan's Farm, Martyr's Fard, and Pickford's Farm, and after very carefully considering all the circumstances as to cost, soil, distance from the main road and town, inclination of the field to be acted upon, facilities as to fall for the flow of the effluent water, convenience of access, &c., I have come to the conclusion that the field numbered 366 and forming part of Martyr's Farm is the one most suitable.

" On reference to the plan and section accompanying this report it will be seen that it is proposed to take the whole of the drainage of the town to this outfall, and that this can be easily effected, and with suitable watering grades, the smallest inclination being not less than a fall of one foot in a fall of a thousand feet, which only occurs at the extreme outfall end.

" The main I have shown as starting from a point on the turnpike road 400 feet north of the centre line of railway, where I propose to intercept the sewage that has its outfall in the Worth Lane ditch, and continue it down the town towards the old pay-gate, to receive by new connections the drainage of the



houses that are now served with a drain that runs at the back of them, through the churchyard, and empties into a ditch on the north-side of Worth Lane, together with that of all the houses situated along its course on both sides of the road, and admitting opposite the Green Lane to the Town Barn the sewage of the whole of that part known as West Green, the direction and flow of the several sewers being shown by arrows in pink on the plan. From this point I then propose to take it along the east side of the road to the Gasworks, where I find I can get sufficiently below the bed of the stream that passes under the road here, and so avoid the necessity of a syphon for that purpose. It then proceeds with one uniform fall on the east side of the road to Maria House, where it leaves the highway in a north-westerly direction for the outfall field, which is situated only some 460 feet from the turnpike-road.

"I would recommend that glazed stoneware socket pipes with cement joints should be used for all new drains, and that in all cases where possible the present drains below the starting point with the new main, that have openings and gratings in the roads, should remain to carry off the surface water and water from the roofs of new houses, thereby relieving the new sewers of much superfluous matter not of an offensive nature, and so enable the new drains to be laid with a less diameter of pipe, and render the sewage matter more valuable and less difficult to deal with over the area proposed for filtration.

"New junctions to be made with all the houses to take the sink water and cesspool overflow, as may be hereafter arranged in detail.

"The new sewers are laid sufficiently low to enable all existing cellars to drain into them, the one at the Sun Inn excepted, the floor of which is some 18 inches lower than the bottom of the pipe so proposed to be laid there.

"I have provided at the point indicated on the section for a self-acting flushing tank, which will be of sufficient size to effectually flush all those drains that are of necessity laid with a small incline below it.

"There will also be the requisite man and lamy holes, for inspection and other purposes, and twin settling tanks at the outfall.

"Earth closets should be adopted for all new houses and cottages, cesspools discontinued, and, where possible, filled up and their use discouraged.

"I have gone roughly into the quantities of work to be done in laying out this system of drainage for the town of Crawley and Ifield, and estimate the total cost of the whole, not including the purchase of the ground and works necessary in rendering the soil suitable for the purpose required, at the sum of

£2,542 and shall be happy to answer all questions and give the Authority any further information they may desire, so far as lies in my power to do so, and render every assistance to enable them to take the necessary steps to, and in carrying out the recommendations contained herein."

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A vestry meeting for the parish of Ifield was held towards the end of September, to consider what steps should be taken to remedy the nuisances in Worth Lane and in other parts of the parish. The ratepayers forming the Crawley and Ifield Vigilance Association contended that the tank system in Worth Lane had not been fairly tried, and that the ditch had not been fully cleansed; some, on the other hand, thought that the tank system had proved an utter failure. In the end a resolution was passed that as the majority of the ratepayers deemed the land selected for the outfall works unsuitable, the Local Government Board be asked to hold an inquiry to select some other suitable site.

In November the Horsham Rural Sanitary Authority gave notice in the local papers of their intention to apply to the Local Government Board for their sanction to purchase certain lands for a sewage outfall. This proposal was warmly opposed by many of the ratepayers, and a memorial to that effect was sent by them to the Local Government Board.

There were three deaths returned as "not certified" in the South Sub-district, out of a total of 54 deaths: female, 7 months, convulsions; female, 8 months, convulsions; female 7 years, worms.

There were three deaths returned as "not certified" in the North Sub-district, out of a total of 38 deaths:—male, 6 years, bronchitis; male, 8 days, convulsions; male, 6 days, premature birth.

There were no deaths returned as "not certified" in the West Sub-district, out of a total of 56 deaths.

Inquests were held in nine cases; male, 3 years, inflammation of the brain, caused by accidental fall on a knife; female, 79 years, shock to system from fractured thigh, from accidental fall; male, 42 years, manslaughter; male, 12 years, accidentally shot; male, 46 years, accidentally killed by a train; male, 52 years, accidentally killed by a train; male, 46 years, accidentally run over by a waggon; male, 18 years, accidental fall from scaffold; female, 80 years, suicide by drowning, whilst of unsound mind.

In the South Sub-district out of 135 births, three children born out of wedlock died during the year; female, 8 months, convulsions, not certified; female, 7 years, worms, not certified;



male, 4 months, enteritis, certified. In the North Sub-district out of 232 births there were no deaths of any illegitimate children, but the returns for the first half of the year gave no information on this point.

In the West Sub-district out of a total of 120 births, there were two deaths of children born out of wedlock; male, 18 hours, debility; male, 9 days, debility; these children were twins, and died in Horsham Workhouse.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There have been no cases during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bakehouses and slaughterhouses have been inspected at intervals, and they have been kept in a cleanly state.

Table I. shows the Deaths at various groups of ages during the past seven years and the proportion they bear to 1,000 deaths.

Table II. shows the prevalence of zymotic disease in each of the past seven years.

Table III. shows the Deaths and Death-rate from all causes and from various causes in different localities during the past seven years.

Table IV. shows the prevalence of Zymotic diseases in each Parish during the past seven years.

Table V. shows the Deaths and Death-rate from all causes and from various causes in each Parish during the last seven years.

The *general* death-rate, was 1765 in 1851-60; 1766 in 1861-70, while in 1876-82 it was 143 per 100,000 persons living.

The *zymotic* death-rate was 388 in 1851-60; 300 in 1861-70, while in 1875-82 it was 129 per 100,000 persons living.

The *phthisis* death-rate, was 261 in 1851-60; 212 in 1861-70, while in 1876-82 it was 158 per 100,000 persons living.

The *lung-disease* death-rate, was 246 in 1851-60; 326 in 1861-70, while in 1876-82 it was 252 per 100,000 persons living.

The *heart-disease* death-rate during 1876-82 was 102 per 100,000 persons living.



## HORSHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 7 years 1876-82.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	243	49	20	12	13	56	93
1877 .....	182	36	9	8	12	39	78
1878 .....	204	39	17	9	6	56	77
1879 .....	241	50	22	12	21	47	89
1880 .....	217	40	25	17	12	40	83
1881 .....	197	40	14	8	9	55	71
1882 .....	198	41	15	14	12	46	70
Total .....	1482	295	122	80	85	339	561
In 1000 Deaths...	1000	199	82	54	58	228	379

TABLE 2.—Showing the Deaths and Death-rate in each of the 7 years 1876-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1876	1	6	4	..	9	..	3	1	3	..	..	..	..	27	1·8
1877	..	2	..	..	..	..	3	..	1	..	..	..	..	6	0·4
1878	..	2	1	1	2	..	1	..	5	1	..	..	1	14	0·9
1879	..	3	1	3	8	..	1	1	3	..	..	..	1	21	1·4
1880	..	4	3	5	4	..	1	1	7	..	..	..	1	26	1·6
1881	..	..	1	2	8	..	..	1	5	2	..	1	2	22	1·4
1882	..	3	1	5	2	..	1	1	1	1	2	..	..	17	1·0
Tl.	1	20	11	16	33	..	10	5	25	4	2	1	5	133	1·2

## HORSHAM RURAL SANIT

TABLE 3.—Showing the Deaths and Death-rate

PARISH.		Population in middle of period.	Mean annual Death-rate per 1,000, all ages.	Deaths from all ca		
				1876-79	1880.	1881.
South S. D.	{ Horsham (part of)	720	15·2	39	13	14
	{ W. Grinstead ...	1438	13·0	74	20	18
	{ Shipley ... ..	1122	14·4	65	15	16
	{ Nuthurst ... ..	776	13·8	49	10	9
North S. D.	{ Horsham (part of)	1964	14·0	125	23	27
	{ Lower Beeding...	1290	12·6	67	18	12
	{ Ifield .. ...	1900	12·4	101	12	24
	{ Crawley (2½ yrs.)	[470]	12·2	...	3	4
West S. D.	{ Rusper ... ..	557	12·3	30	5	6
	{ Warnham ... ..	1049	13·3	58	18	13
	{ Slinfold ... ..	786	14·7	47	11	10
	{ Itchingfield ...	420	16·0	25	7	4
	{ Rudgwick ... ..	1110	18·5	91	25	15
	{ Billingshurst ...	1600	16·0	99	37	25
Whole District...		14732	14·3	870	217	197

STRICT, 1876-82.

causes and from various causes in each Parish  
years.

in the eight years.	Mean annual number of deaths.	Total deaths in eight years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
77	11.0	9	10	13	178	198	258
31	18.7	16	7	19	159	69	188
13	16.1	9	15	14	114	190	178
75	10.7	8	11	12	147	202	220
93	27.6	14	13	37	101	94	267
14	16.3	10	12	19	110	132	209
66	23.7	16	24	27	120	180	202
15	2.1	2	1	3	...	...	...
48	6.8	4	8	8	102	204	204
98	14.0	11	8	23	150	109	313
81	11.6	5	6	16	90	108	288
47	6.7	6	10	8	204	340	272
44	20.6	10	9	29	128	116	373
30	25.7	13	29	32	116	259	285
2	211.7	133	163	260	129	158	252



## HORSHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years, 1876-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping- Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.
West S. D.															
Horsham (part) ...	680	1	1	2	4	..	..	..	..	..	..	..	..	1	9
West Grinstead...	1490	..	1	2	1	2	2	2	3	3	..	1	..	1	16
Shipley .....	1110	..	1	..	5	3	..	..	..	..	..	..	..	..	9
Nuthurst .....	820	..	3	..	..	1	..	..	..	2	..	..	..	1	8
Horsham (part)...	2160	..	2	1	2	2	1	1	1	4	..	..	..	1	14
Lower Beeding ...	1316	..	..	..	..	6	..	..	..	4	..	..	..	..	10
Ifield .....	2090	..	3	1	2	4	..	..	..	2	2	..	..	..	16
Crawley .....	445	..	1	..	..	1	..	..	..	..	..	..	..	..	2
Rusper .....	534	..	1	1	..	..	..	..	..	1	..	1	..	..	4
Warnham ..	1070	..	1	..	2	5	..	..	..	2	1	..	..	..	11
Slinfold .....	770	..	..	1	..	..	..	1	..	2	..	..	..	..	5
Itchingfield .....	438	..	..	3	..	2	..	1	..	..	..	..	..	..	6
Rudgwick .....	1130	..	4	..	..	2	1	1	1	1	1	..	1	..	10
Billinghurst .....	1617	..	2	..	..	5	1	1	4	4	..	..	..	1	13
Whole District...	15670	1	20	11	16	33	10	5	25	4	2	1	5		133

West S. D. North Sub-Dist. South S. D.

## HORSHAM RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 7 years 1876-82,

Deaths during the 7 years 1876-82, from		Annual Death-rate per 100,000 living from									
LOCALITY.	Population in middle of period.	All Diseases	Zy motic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zy motic Disease.	Phthisis.	Lung Disease.	Heart Disease.
South Sub-District .....	4056	396	42	43	58	25	1394	148	151	204	88
North Sub-District .....	6760	634	57	66	117	41	1339	120	139	247	86
West Sub-District.....	3916	452	34	54	85	40	1648	124	197	310	146
Whole District .....	14732	1482	133	163	260	106	1437	129	158	252	102
In 1876 .....	14306	243	27	27	42	17	1698	188	188	293	118
In 1877 .....	14445	182	6	23	26	17	1260	41	159	180	117
In 1878 .....	14588	204	14	21	38	16	1398	96	143	260	109
In 1879 .....	14732	241	21	30	49	17	1635	142	203	332	115
In 1880 .....	15350	217	26	19	47	14	1413	169	124	306	91
In 1881 .....	15510	197	22	22	30	13	1270	141	141	193	83
In 1882 ..	15670	198	17	21	28	12	1263	108	134	178	76

TABLE A.—Showing the Deaths during the year 1882, in the Rural District of Horsham, and also the Population of such Localities.

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11		
SOUTH HORSHAM ...	4083	4100	135	52	14	2	6	1	8	21	Under 5 ..... 5 upwd	
NORTH HORSHAM ...	7464	7615	232	83	21	12	6	2	17	25	Under 5 ..... 5 upwd	
WEST HORSHAM ..	3940	3955	120	50	4	—	2	8	15	21	Under 5 ..... 5 upwd	
WORKHOUSE ...				21	2	1	—	2	8	8	Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
											Under 5 ..... 5 upwd	
TOTALS .....	15187	15670	487	206	41	15	14	13	48	75	Under 5 ..... 5 upwd	
Deaths occurring outside the district among persons belonging thereto .....											Under 5 ..... 5 upwd	
Deaths occurring within the district among persons not belonging thereto .....				8	—	—	—	1	2	5	Under 5 ..... 5 upwd	





TABLE B.—Showing the New Cases of Sickness coming to the knowledge  
District of HORSHAM, classified

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
South Sub-District.	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
North Sub-District.	Under 5 ..... 5 upwds.	.....	.....	1 ..... 5	..... 1	.....	5 ..... 2
West Sub-District	Under 5 ..... 5 upwds	.....	..... 3	.....	.....	.....	.....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
Totals .....	Under 5 ..... 5 upwds.	.....	..... 3	1 ..... 5	..... 1	.....	5 ..... 2

Sources of information:—In Workhouse and Work

Medical Officer of Health, during the year 1882 in the Rural Sanitary District of  
according to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS  
AGE.

[illegible]

nary, 58. Among Out-door Paupers, 553.



RAINFALL.—The amount of rainfall during the year was taken daily by T. W. Cowan, Esq., of Compton's Lea, who has kindly allowed me to use his tables.

Month.	Total depth in inches.	No. of rainy days.	Rainfall in	
			—————	
January	.. 1·26	.. 10	.. ·70	.. ·87
February	.. 1·07	.. 9	.. 3·33	.. 3·22
March	.. 1·54	.. 14	.. ·66	.. 2·52
April	.. 3·05	.. 17	.. 2·29	.. ·43
May	.. 1·44	.. 14	.. ·07	.. 1·02
June	.. 2·37	.. 22	.. 2·98	.. 1·98
July	.. 3·27	.. 19	.. 3·64	.. ·73
August	.. 1·52	.. 15	.. 1·76	.. 5·60
September	.. 3·32	.. 11	.. 4·69	.. 2·98
October	.. 6·89	.. 22	.. 7·01	.. 2·60
November	.. 2·89	.. 19	.. 3·66	.. 4·00
December	.. 2·68	.. 20	.. 3·31	.. 3·58
<hr/>				
Total . . . .	31·30	192	34·10	29·53

The rain guage is placed 4ft. above the ground and 253 ft. above the sea level; diameter of funnel, 5 inches.

## RURAL SANITARY DISTRICT OF PETWORTH.

---

POPULATION, 10,138 IN 1871; 9,563 IN 1881. AREA IN ACRES, 44,747. NO. OF HOUSES (1871) 2,008.

During the year 1882 the births of 275 children, and the deaths of 125 persons were registered; of the births 139 were male and 136 were female; of the deaths 65 were male and 60 were female.

There were four deaths in Petworth Workhouse, and there were three deaths in Kirdford Workhouse, but none either in Wisborough Green Workhouse or in Petworth Cottage Hospital. The workhouse deaths are distributed among the several parishes whence each inmate came, viz., Wisborough Green 2, Petworth 2, Fittleworth 2, and Bury 1, in all 7.

The deaths in each parish were thus distributed:—Wisborough Green 21, Northchapel 13, Kirdford 20, Petworth 36, Egdean 1, Fittleworth 12, Stopham 0, Coates 0, Burton 0, Duncton 0, Barlavington 2, Sutton 6, Bignor 4, Bury 10; in all 125.

The births and deaths in the whole of the district during the past eight years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1875	...	323	32·5	178	17·9
1876	...	264	26·7	157	15·8
1877	...	296	30·1	148	15·0
1878	...	280	28·6	184	18·8
1879	...	298	30·8	160	16·5
1880	...	267	27·8	136	14·1
1881	...	292	30·6	158	16·5
1882	...	275	28·9	125	13·1

The population is an agricultural one, and the last census showed a decrease of 575 persons since the census of 1871. The excess of births over deaths is considerable; in the last four years there were 1,132 births and 579 deaths, so that the natural increase of population was therefore 553. There is an estimated decrease during the same period of 280, so that there is a considerable migration going on to other districts.

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	35	38	73	16	17	33
2nd	„	21	32	53	17	13	30
3rd	„	43	26	69	11	16	27
4th	„	40	40	80	21	14	35
Total ...		139	136	275	65	60	125

The births appear to be most numerous in the first and second quarters of the year :—

		1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	...	69	71	86	73	299	75
2nd	„	84	79	72	53	288	72
3rd	„	56	63	81	69	269	67
4th	„	89	54	53	80	276	69
Total ...		298	267	292	275	1132	283

The following table shows the birth rate in different localities for a term of seven years :—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 7 years.
North S.D.	27.5	32.1	28.9	28.8	28.5	30.3	28.7	29.2
Petworth Parish	26.0	28.4	29.0	33.3	28.3	30.3	28.5	29.1
Rest of Sth. Sub.-Dis.	26.2	28.7	27.5	31.2	25.9	31.3	29.7	28.6
Total ...	26.7	30.1	28.6	30.8	27.8	30.6	28.9	29.0

The birth rate in each sub-district appears to vary very slightly, and it is much lower here than in the districts of Steyning and Horsham, where the population is steadily increasing in numbers.

The birth-rate in 1882 throughout England and Wales was equal to 33.7 per 1,000 persons estimated to be living in the middle of the year; it showed, according to the Registrar-General, a further slight decline from the steadily decreasing rates in the five preceding years, and it was lower than the rate recorded in any year since 1858, when it was also 33.7.



The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1--5.	5--15.	15--25.	25--60,	60 and Upwds.	Total
1st Quarter ...	4	3	2	2	5	17	33
2nd „ ...	5	1	2	2	8	12	30
3rd „ ...	2	1	1	—	10	13	27
4th „ ...	6	3	1	4	8	13	35
	—	—	—	—	—	—	—
Total ...	17	8	6	8	31	55	125

On comparing this result with Table I. it will be seen that less than one-sixth of the deaths are under one year of age, while nearly one-half are aged sixty years and upwards. This arises chiefly from the age distribution of the people whereby, since young people leave the district, there is an excess of aged persons and a low marriage and birth rate.

Taking the average of the last eight years, it appears that the deaths are most numerous in the first and last quarters of the year :—

	1875-78.	1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	182	51	43	43	33	352	44
2nd „	158	47	30	42	30	307	38
3rd „	141	26	24	32	27	250	31
4th „	186	36	39	41	35	337	42
	—	—	—	—	—	—	—
Total...	667	160	136	158	125	1246	155

The *infant mortality* is here given as measured by the number of births under one year to the total number of births in the year :—

		Births.	Dths. under 1 year	Ratio to 1,000 Births.
North Sub-District	...	119	3	25
Petworth Parish	...	83	10	120
Rest of S. Sub-District	...	73	4	54
		—	—	—
Whole of District	...	275	17	61

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years.

The 17 infantile deaths in 1882 included 2 from whooping-cough, 2 from diarrhœa, 5 from convulsions, 2 from lung diseases, 1 from enteritis, 3 from debility, and 2 from premature birth.

The following table shows the rate of infant mortality in different localities during the past seven years :—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 7 yrs.
North Sub-Dis.	111	51	121	66	33	111	25	74
Petworth Par.	109	67	111	110	83	101	120	100
Rest of S. S.D.	61	84	88	117	78	65	54	78
Whole District	106	64	110	94	60	95	61	84

The deaths from *zymotic*, or catching, disorders were eight in number against 10, 14, 8, 17, 13, 12, and 4 in the seven preceding years.

The eight deaths included 1 from diphtheria, 3 from whooping cough, 3 from diarrhœa and one from erysipelas.

The rate of mortality from these diseases during the past year was 0·8 per 1,000 persons living against a rate of 1·0, 1·4, 0·8, 1·7, 1·3, 1·2, and 0·4 in the seven preceding years.

In the past eight years there have been altogether 86 deaths in this class, or a mean annual rate of 1·1 per 1,000.

There were a few mild cases of scarlet fever in the course of the year, but there was no outbreak of any kind which calls for special notice.

**WATER SUPPLY.**—The scheme for supplying the town of Petworth with water, which was mentioned in my last report, was laid before a meeting of the owners of property and rate-payers of the town in the middle of March. The following report of the meeting, taken from the *Sussex Daily News*, shows the conditions on which Lord Leconfield undertakes to supply the town with abundant and excellent drinking water. The present water supply to the town of Petworth is in part derived from springs in Petworth Park by means of a conduit, and in other part from the river Rother by means of pumps and other works at Coultershaw, about  $1\frac{1}{2}$  miles from the town, and such conduits and other works were formerly constructed by the predecessors in title of Lord Leconfield, and since maintained by those predecessors and Lord Leconfield himself. The water now supplied to the town is, as regards that derived from the river at Coultershaw, deemed to be of an inferior quality, and Lord Leconfield is desirous of furnishing to the town a purer and more copious supply from a spring of water known as the Haslingbourne spring, in lieu of and in substitution for the existing supply. And for this purpose it is proposed that the water from the Haslingbourne spring shall be carried in a south-westerly direction to an engine house, the pumps to be erected at Haslingbourne, and thence pumped up through a line of pipes running through Byworth to a service reservoir to be con-

structed at a site near the Cottage Hospital, whence it is to be carried by another line of pipes to Petworth. The proposed engine house and pumps and service reservoir and most of the line of pipes will be erected on Lord Leconfield's land, of which he is seized in fee simple for his life with remainder to his eldest son entailed.

1. The Rural Sanitary Authority will construct and complete the works without doing an unnecessary damage to Lord Leconfield's land and pay any compensation which may be agreed upon with or found due to the owners of any lands, other than those of Lord Leconfield, or from the loss of the water from the said spring.

2. Lord Leconfield will, on completion of the works, repay to the Authority the amount of the estimate for construction (£2,500) but not in compensation as aforesaid.

3. The Authority will not, after the completion of the works, use or claim to use the present conduit or the works connected with it, or the water so conveyed or any part thereof, and will declare by deed under its common seal that the supply of water intended to be hereby provided shall be accepted and taken as an effectual and complete substitution and satisfaction of and for the right to use and take the water of the springs in Petworth Park and the use of the conduit.

4. Lord Leconfield will grant to the Authority, for the term of his life, or until the Authority or other the persons thereto entitled shall effectually claim to use the said conduit and other things or any of them mentioned in the preceding article, the full free and uninterrupted right to use such part of the works as is situate upon the lands of which he is the tenant for life with liberty at all times to enter upon the said lands for the purpose of inspecting or repairing the works or any of them, and will in such grant covenant that he will use his best endeavours to obtain a grant of such right to the Authority in fee simple from his eldest son on his attaining his majority.

5. After the completion of the works the Authority will at their own expense keep them at all times in good repair and condition unless or until the Authority shall without expense to Lord Leconfield or his sequels in estate or otherwise with his or their consent in writing, find and provide an equally good supply elsewhere.

6. The Authority shall make good or pay to Lord Leconfield compensation for all damage occasioned by them to his land or to his tenants or undertenants, or to his or their growing crops, hedges, fences, ditches, or drains, in inspecting or repairing the works or any of them after they shall be completed in the manner provided by the Common Law Procedure Act.

7. If the Authority should at any time provide such sub-



stituted supply as above mentioned or shall otherwise cease for a space of twelve calendar months to exercise the "right" mentioned above, the works so far as the same shall be on his land shall revert to and become the absolute property of Lord Leconfield or his sequels in estate without any claim from the Authority in respect thereof.

The following is the report of Mr. G. H. Ogston who analysed the water from the Haslingbourne spring:—

"One gallon evaporated to dryness yields of solid residue 14·18 grains, the composition of which is here given.

	Grains.
Chloride of Sodium.....	2·85
Carbonate of Lime.....	5·00
Carbonate of Magnesia.....	1·34
Nitrate of Magnesia.....	1·11
Sulphate of Lime.....	1·39
Carbonate of Soda.....	1·32
Silica.....	·63
Loss of ignition.....	·54
	<hr/>
	14·18
Hardness on Clark's scale:	
Total.....	·70
Permanent.....	·70
Ammonia, saline.....	·00055
,, organic.....	·00070
Nitrogen present as nitrates or nitrites....	·81

The water is of remarkable purity; indeed it is rarely, even from deep wells in the chalk, a specimen is found containing such minute traces of saline or organic ammonia and therefore such absolute freedom from recent or remote contamination. Viewed through a tube three feet long a faint apple green tinge only is perceptible, indicating not only the absence of organic colouring matters, but of any substances held in suspension.

The water has a bright appearance and a pleasant brisk taste. It is a soft water, so that besides the advantages given to it as a drinking water by its purity, it recommends itself by this quality of softness for general household and culinary purposes. It will be observed that though in the mineral constituents of the residue there are found five grains of carbonate of lime and some carbonate of magnesia, there is no difference between the total and permanent hardness, *i.e.*, before and after the water has been boiled. No doubt long continued boiling would eventually diminish the total hardness accompanied by the deposition of carbonate of lime and magnesia, but the test for this effect having been made in the usual manner and continued

for the usual time no such change took place, the result of the actual experiment being recorded in my analysis.

As a domestic or a town supply the water is of the highest class."

Messrs. Hassard and Tyrrell, the civil engineers, reported that the Haslingbourne spring was a beautiful and copious one yielding about 180,000 gallons of water daily, and it could at any time be supplemented, if needful, by conveying to it the waters of the Virgin Mary Spring and of the other springs rising higher up in the valley. They strongly advised the adoption of the Haslingbourne spring as the source of the supply and that should the scheme be adopted the existing pumping machinery at Coultershaw Bridge should be abandoned. The existing small lead distributing pipes throughout the town should be taken up and replaced by iron ones with proper sluice cocks, hydrants, and fittings. They estimated the cost of taking water from the Haslingbourne spring, of providing a pumping engine and of other necessary works at £2,500 and to complete the project, the cost of new iron pipes, &c., for street distribution would amount to about £700 more. The annual cost for the supply would be about £200 a year, including £35 for interest on the expenditure of £700.

The meeting concluded by heartily accepting Lord Leconfield's proposition.

The spring belongs to H. Upton, Esq., and he has agreed to lease it to the Authority for a term of 299 years reserving to himself the right to take not more than 50,000 gallons weekly for his own house and purposes.

The reservoir will hold about 180,000 gallons and the number of people in the area supplied by the water is estimated at 2,500.

The water will be brought into the town by Lord Leconfield, but the cost of distributing it through the town will be borne by the ratepayers and the expense is estimated at £700.

There will be 28 fire plugs and 18 stand pipes or street wells. There will be no free supply of water, but every ratepayer will contribute towards the cost.

Early in July tenders were accepted by the Authority for the construction of the necessary works which were carried out and nearly completed by the end of the year.

There were three deaths returned as "not certified" in the North Sub-District out of a total of 54 deaths:—female, 2½ years, unknown; male, 77 years, unknown; female, 89 years, old age.

There were two deaths returned as "not certified" in the South Sub-District out of a total of 71 deaths:—male, 1 year, convulsions; male, 5 years, convulsions. There do not appear to have been any inquests held in this district during the year.



There was one death of an illegitimate child out of a total of 275 births :— male, one day, premature birth, certified.

A few cases of overcrowding were dealt with during the year and the nuisance was abated.

No cases occurred in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

The bake-houses and slaughter-houses have been inspected at intervals and they have been kept in a cleanly state.

There is one common lodging house in the district and this has been kept in a proper state.

No proceedings were taken before the Magistrates during the year.

There were 537 new cases of pauper sickness during the years against 1,140, 866, 812, 826, 702, 700, and 522 in the seven preceeding years.

The following tables show in a statistical form the condition of the district during the past eight years.

Table I. shows the deaths at various groups of ages and the proportion they bear to 1,000 deaths.

Table II. shows the deaths and death-rate in each year from zymotic diseases.

Table III. shows the death and death-rate from all causes and from various causes in each parish of the district during the past eight years.

Table IV. shows the deaths from zymotic diseases in each parish during the past eight years.

Table V. shows the deaths and death-rate from all causes and from various causes in different localities in the last eight years.

Table A. shows the mortality in 1882, classified according to

Table B. shows the new cases of sickness among the pauper population of the district during the past year.

The *general* death-rate was 1855 in 1851-60 ; it was 1933 in 1861-70, and in 1875-82 it was 1,602 per 100,000 persons living.

The *zymotic* death-rate was 271 in 1851-60 , 319 in 1861-70, and in 1875-82 it was 110 per 100,000 persons living.

The *phthisis* death-rate was 283 in 1851-60 ; 226 in 1871-70, and in 1875-82 it was 154 per 100,000 persons living.

The *lung-disease* death-rate was 211 in 1851-60 ; 230 in 1861-70, and in 1875-82 it was 284 per 100,000 persons living.

The death-rate from *heart-disease* during the last eight years, has been on the average 135 per 100,000 persons living.



## PETWORTH RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82,

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875 .....	178	26	17	11	12	33	79
1876 .....	157	26	19	2	7	41	62
1877 .....	148	19	5	11	7	40	66
1878 .....	184	31	11	11	11	37	83
1879 .....	160	28	13	13	11	27	68
1880 .....	136	16	10	9	8	27	66
1881 .....	158	28	10	9	9	34	68
1882 .....	125	17	8	6	8	31	55
Total .....	1246	191	93	72	73	270	547
In 1000 Deaths...	1000	152	75	58	59	270	439

TABLE 2.—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1875	..	..	1	5	2	..	..	..	1	..	1	..	..	10	1.0
1876	..	..	3	4	2	..	..	..	1	1	..	..	3	14	1.4
1877	1	1	..	5	3	..	..	..	1	..	..	..	..	8	0.8
1878	..	..	..	6	3	..	..	..	3	..	..	1	1	17	1.7
1879	..	..	..	8	1	..	2	..	1	1	..	..	..	13	1.3
1880	..	3	3	2	2	..	1	..	..	1	..	..	..	12	1.2
1881	..	..	..	3	..	..	1	..	..	..	..	..	..	4	0.4
1882	..	..	..	1	3	..	..	..	3	..	1	..	..	8	0.8
Tl.	1	4	7	34	13	..	7	..	10	3	2	1	4	86	1.1

## PETWORTH RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate for the years 1876-79, 1880, and 1881, in

PARISH.		Population in middle of period.	Mean annual Death-rate per 1,000, all ages.	Deaths from all causes		
				1876-79	1880.	1881.
North S. D.	Wisboro Green	1686	16.0	139	17	39
	Northchapel...	795	16.5	68	7	17
	Kirdford ... ..	1725	15.7	144	24	29
	Petworth .....	3045	16.7	282	49	41
	Egdean.....	75	16.6	4	1	4
South S. D.	Fittleworth ...	695	18.5	63	15	13
	Stopham .....	152	9.8	9	2	1
	Coates .....	65	17.3	9	...	...
	Burton .....	70	17.1	3	2	1
	Duncton .....	265	9.4	14	3	3
	Barlavington	170	6.6	5	1	1
	Sutton .....	320	15.2	27	4	2
	Bignor .....	130	19.2	14	1	1
	Bury	525	17.1	46	10	6
Whole District...		9718	16.0	827	136	158

ISTRICT, 1875-82.

causes and from various causes in each Parish  
years.

in the eight years.	Mean annual number of deaths.	Total deaths in eight years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
1876	27.0	8	20	52	59	148	385
1875	13.1	9	12	16	141	188	251
1877	27.1	11	14	44	79	101	318
1878	51.0	37	53	65	151	201	266
1879	1.2	...	...	...	...	...	...
1880	12.9	6	10	15	108	180	270
1881	1.5	...	...	1	..	..	82
1882	1.1	4	1	1	768	192	192
1883	0.7	...	1	...	...	178	...
1884	2.5	...	...	4	...	...	188
1885	1.1	1	...	3	73	...	219
1886	4.9	1	4	8	39	156	312
1887	2.5	...	1	5	...	96	480
1888	9.0	9	4	7	214	95	166
1889	...	...	...	...	...	...	...
1890	...	...	...	...	...	...	...
1891	...	...	...	...	...	...	...
1892	...	...	...	...	...	...	...
1893	...	...	...	...	...	...	...
1894	...	...	...	...	...	...	...
1895	...	...	...	...	...	...	...
1896	155.7	86	120	221	110	154	284



## PETWORTH RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 8 years, 1875-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping- Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
Wisborough Green	1645	..	..	..	6	1	Typhus.	Enteric, or Typhoid.	Other or doubtful	1	..	..	..	..	8
Northchapel	790	..	..	..	7	2	..	..	..	..	..	..	..	..	9
Kirdford	1700	..	..	..	8	1	..	..	..	..	..	..	..	2	11
Petworth	2910	1	4	5	7	7	..	5	..	4	..	2	..	2	37
Egdean	75	..	..	..	..	..	..	..	..	..	..	..	1	..	6
Fittleworth	695	..	..	..	1	..	..	..	..	2	2	..	..	..	6
Stopham	156	..	..	1	..	..	..	2	..	..	1	..	..	..	4
Coates	58	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burton	73	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Duncton	268	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barlavington	185	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Sutton	310	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Bignor	120	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bury	515	..	..	1	5	2	..	..	..	1	..	..	..	..	9
Whole District...	9,500	1	4	7	34	13	—	7	—	10	3	2	1	4	86

## PETWORTH RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82,

LOCALITY.	Deaths during the 8 years 1875-82, from						Annual Death-rate per 100,000 living from					
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	
North Sub-District .....	4206	538	28	46	112	39	1599	83	136	332	115	
Petworth Parish .....	3045	408	37	53	65	29	1674	151	201	266	119	
Rest of S. Sub-District...	2467	300	21	21	44	27	1520	106	106	212	187	
Whole District . . .	9718	1246	86	120	221	105	1602	110	154	284	135	
In 1875 .....	9936	178	10	19	28	23	1791	100	191	281	231	
In 1876 .....	9885	157	14	11	27	12	1588	141	111	273	121	
In 1877 .....	9833	148	8	19	20	13	1505	81	193	203	132	
In 1878 .....	9780	184	17	17	34	8	1881	173	173	346	82	
In 1879 .....	9657	160	13	17	35	15	1656	134	175	362	155	
In 1880 .....	9603	136	12	12	22	6	1416	124	124	229	62	
In 1881 .....	9550	158	4	13	38	16	1654	41	136	397	167	
In 1882 .....	9500	125	8	12	17	12	1315	84	126	179	126	

TABLE A.—Showing the Deaths during the year 1882, in the Rural District showing also the Population of such Localities.

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11		
NORTH SUB-DIS. ...	4160	4135	119	52	3	5	4	1	15	24	Under 5. ..... 5 upwds	
PETWORTH PARISH...	2942	2910	83	34	10	3	1	3	7	10	Under 5. ..... 5 upwds	
REST OF SOUTH S.D.	2461	2455	73	32	4	—	1	3	7	17	Under 5. ..... 5 upwds	
PETWORTH WORK- HOUSE ... ..				4	—	—	—	1	1	2	Under 5. ..... 5 upwds	
KIRDFORD WORK- HOUSE ... ..				3	—	—	—		1	2	Under 5. ..... 5 upwds	
WISBOROUGH GREEN WORKHOUSE ..					—	—	—		—	—	Under 5. ..... 5 upwds	
PETWORTH COTTAGE HOSPITAL ... ..					—	—	—		—	—	Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
TOTALS .....	9563	9500	275	125	17	8	6	8	31	55	Under 5. ..... 5 upwds	
Deaths occurring outside the district among persons belonging thereto .....											Under 5. ..... 5 upwds	
Deaths occurring within the district among persons not belonging thereto .....											Under 5. ..... 5 upwds	





TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of PETWORTH, class

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF PETWORTH, CLASSIFIED BY AGE AND SEX.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
North Sub-District.	Under 5 ..... 5 upwds.	..	....	....	2	..	..
Petworth Parish.	Under 5 ..... 5 upwds.	..	..	3	1 2	....	....
Rest of South Sub-District.	Under 5 ..... 5 upwds	..	....	1 1	..	....	1 1
	Under 5 ..... 5 upwds	..	....	..	..	....	....
	Under 5 ..... 5 upwds	....	....	....	....	....	....
	Under 5 ..... 5 upwds	....	....	....	....	....	....
	Under 5 ..... 5 upwds.	...	....	...	....	....	....
	Under 5 ..... 5 upwds.	....	..	....	....	....	....
	Under 5 ..... 5 upwds.	....	....	....	....	....	....
	Under 5 ..... 5 upwds.	....	....	....	....	....	....
Totals .....	Under 5 ..... 5 upwds.	....	....	1 4	1 4	....	1 1

Sources of information:—In Workhouse and Workhouse Infirmary

Medical Officer of Health, during the year 1882 in the Rural Sanitary  
ording to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

[illegible]

ing Out-door Paupers, 505. In Petworth Cottage Hospital, 10.



RAINFALL.—The amount of rainfall during the year was taken daily by the Rev. C. Holland, who has kindly allowed me to use his tables.

Month					Total depth in inches.	No. of rainy days.	Rainfall in 1881.
January	...	...	...		2·10	6	1·42
February	...	...	...		2·46	8	3·46
March	...	...	...		0·89	6	3·07
April	...	...	...		3·81	12	0·54
May	...	...	...		1·51	9	1·30
June	...	..	...		2·95	16	1·69
July	...	..	...		3·36	15	3·09
August	...	...	...		1·97	9	5·94
September	...	...	...		2·72	11	2·82
October	...	...	....		7·12	15	2·13
November	...	...	...		3·58	22	5·40
December	...	...	...		3·22	16	3·99
Total .....					35·69	145	34·89

The rain guage is placed 4ft. above the ground and 180ft. above the sea level ; diameter of funnel, 5 inches.

## RURAL SANITARY DISTRICT OF THAKEHAM.

POPULATION, 8,422 IN 1871 ; 8,295 IN 1881. AREA IN ACRES, 38,784. NO. OF HOUSES (1871) 1,705 ; (1881) 1652.

DURING the year 1882 the births of 251 children and the deaths of 103 persons were registered ; of the deaths 137 were male and 114 were female ; of the deaths 52 were male and 51 were female.

There were only 102 deaths registered in the Rural Sanitary District ; the remaining death occurred in the Worthing Infirmary, which is outside the district. There were eleven deaths in Thakeham Workhouse and these have been distributed among the several parishes whence each inmate came, viz., North Stoke 1, Cold Waltham 2, Pulborough 4, Storrington 3, and Ashington 1, in all 11.

In each parish the deaths were thus distributed :—North Stoke 3, Amberley 16, Rackham 1, Greatham 0, Hardham 3, Cold Waltham 8, Wiggonholt 0, Pulborough 18, West Chiltington 5, Parham 0, Storrington 21, Sullington 2, Thakeham 1, Warminghurst 0, Ashington 7, Wiston 5, Washington 3, Findon, 10, in all 103.

The births and deaths in the whole of the district during the past eight years have been as follows :—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1875	...	260	31·0	169	20·1
1876	...	272	32·5	128	15·3
1877	...	284	34·0	107	12·8
1878	...	257	30·8	141	16·9
1879	...	275	33·0	127	15·2
1880	...	269	32·4	148	17·8
1881	...	231	27·8	114	13·7
1882	...	251	30·3	103	12·4

In each quarter the births and deaths were as follows :—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	45	32	77	12	14	26
2nd	„ ...	31	20	51	13	13	26
3rd	„ ...	29	34	63	13	12	25
4th	„ ...	32	28	60	14	12	26
Total	..	137	114	251	52	51	103

The births appear to be most numerous in the first quarter, while for the rest of the year the numbers are very nearly equal.

	1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter ...	75	79	55	77	286	71
2nd „ ...	67	77	56	51	251	63
3rd „ ...	63	51	65	63	242	60
4th „ ...	70	62	55	60	247	62
Total ...	275	269	231	251	1026	256

The following table shows the birth rate in different localities during the past seven years:—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean.
Pulboro' Parish	32.7	32.2	35.6	30.2	36.4	30.4	33.2	32.9
Rest of Pulboro' Sub-Dis.	29.4	32.8	25.3	35.3	33.4	26.3	27.3	29.9
Storrington Parish	27.6	31.9	26.0	31.8	20.1	30.2	21.8	27.0
Rest of Washington Sub-D	36.5	36.7	33.8	34.0	34.6	26.3	31.1	33.3
Total	32.5	34.0	30.8	33.0	32.4	27.8	30.3	31.5

The numbers vary considerably; the birth-rate in Storrington is always low, because there is in this village a large school and this affects the distribution of population as to age and sex.

The excess of births over deaths is considerable; in the last four years there were 1,026 births and 492 deaths, so that the natural increase of population was therefore 534. The estimated population during the same period declined from 8,330 to 8,280 so that there is a great migration going on to other districts.

The birth rate in 1882 throughout England and Wales was equal to 33.7 per 1,000 persons estimated to be living in the middle of the year; it showed according to the Registrar-General, a further slight decline from the steadily decreasing rates in the five preceding years, and it was lower than the rate recorded in any year since 1858, when it was also 33.7.

The deaths at various groups of ages in each quarter are here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total
1st Quarter ...	3	3	—	3	3	14	26
2nd „ ...	1	4	1	—	2	18	26
3rd „ ...	3	4	3	1	8	6	25
4th „ ...	2	1	—	—	9	14	26
...	9	12	4	4	22	52	103



On comparing this result with Table I, it will be seen that the numbers dying under one year of age are very low while more than two-fifths die aged sixty years and upwards. This result is chiefly due to the age-distribution of the population.

Taking the average of the last seven years, it appears that the deaths are most numerous in the first and second quarters of the year :—

	1876-78.	1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	114	37	40	33	26	250	36
2nd „	91	36	41	28	26	222	32
3rd „	90	19	41	18	25	193	27
4th „	81	35	26	35	26	203	29
Total...	376	127	148	114	103	868	124

The *infant mortality* is here given as measured by the number of deaths under one year to the total number of births in the year :—

	Births.	Dths. under 1 year	Ratio to 1,000 Births.
Pulborough Parish	60	2	33
Rest of Pulborough Sub-Dis.	57	4	70
Storrington Parish ... ..	40	—	—
Rest of Washington Sub-Dis.	94	3	32
Whole of District ...	251	9	35

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1,000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years.

The following table shows the rate of infant mortality in different localities during the past seven years :—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean of 7 yrs.
Pulborough Parish ...	100	101	92	54	96	36	33	73
Rest of Pulboro Sub-Dis. . .	193	14	188	151	114	72	70	114
Storrington Parish ..	57	49	58	71	37	73	—	49
Rest of Wash- ington S.D.	60	61	76	29	169	62	32	70
Whole District	99	56	101	72	119	60	35	77

The nine infantile deaths in 1882 included one from hydrocephalus, five from convulsions, two from lung diseases, and one from debility.

The deaths from *zymotic*, or catching disorders, were six in number; in the seven previous years there were respectively 23, 20, 8, 9, 9, 29, and 6 deaths from this group of disorders.

The rate of mortality from these diseases was 0·7 per 1,000 persons living against a rate of 2·7, 2·3, 0·9, 1·0, 1·0, 3·4, and 0·7 in the seven preceding years.

There was one death from measles, one from scarlatina, one from enteric fever, two from diphtheria and one from rheumatic fever.

In the past eight years there have been altogether 110 deaths from this class of disorders, or a mean annual rate of 1·6 per 1,000.

*Small-pox* appeared in the district early in the year at Washington. Mr. G., 30 years, a market gardener, was poorly on December 20th, 1881, and he had a few spots on his face and arms; no notice was taken of this and he went about his work as usual, thinking he was suffering from a "bilious attack." He had three good marks from vaccination performed when he was seven years old. He went about with his garden produce to Brighton and Portslade, and at this time small-pox was very prevalent at Hove, but although he does not know of any case with which he came in contact, he no doubt was exposed to infection by his frequent visits there.

On January 4th, 1882, his wife, 26 years of age, was taken ill and the rash appeared on January 7th. She was vaccinated as a baby and had three good old marks; after a rather severe attack she recovered and there were no more cases.

The house was a large and roomy one, and stood in grounds of its own so that it was well isolated. Two families lived in the house and altogether there were twelve inmates, including five children.

Nine of these inmates were revaccinated on Jan. 9th, with the following result:—

Mrs. G., senr., 3 good old marks	} re-vaccinated successfully in two places.
Louisa G., 25 years, ditto.	
Michael G., 27 years, ditto.	
Kate G., 10 years, ditto.	
Eliza G., 9 years, ditto.	
James G., 8 years, ditto.	
John G., 5 years, ditto, re-vaccinated twice unsuccessfully.	
Michael G., 1 year, ditto, not re-vaccinated.	
William G., 29 years, and Katherine G., aged 18 years, each 3 good old marks, re-vaccinated unsuccessfully on Jan. 9th; but successfully on January 17th in two places.	

The patient was kept in a room by herself and all the rest stayed at home. They were all most careful in allowing no one

to come and see them and they did all they could to stop any spread of the disorder. On January 30th, the house was well fumigated with burning sulphur and some of the bedding was burnt. There was no other case although many were exposed to the infection.

There was one death from *enteric* fever at Storrington. Charles E. C., 40 years, was taken ill in June and died on July 18th. He was occasionally engaged in removing night soil and he had been poorly for some time. He lived in the centre cottage of a row of three and no one else had the fever. The drainage here was not good, but the owner at once had it put in good repair.

An infant, nearly two years of age, died at Pulborough of *diphtheria* on May 15th; another child in this family died of the same disease at Petworth about two years previously. A girl, 16 years of age, died on February 13, of *diphtheria* at Storrington; but in neither of these cases was there any sanitary defect nor were other members of the family attacked.

Inquests were held in two cases:—female, 5 years, accidentally drowned; male, 75 years, accidental fall from cart.

There were two deaths returned as “not certified,” in the Pulborough sub-district out of a total of 54:—Female, 2 days convulsion fits; male, 13 days, convulsion fits.

There was one death returned as “not certified” in the Washington sub-district out of a total of 49:—Male, 64 years, probably disease of the heart.

There was only one death in the whole district of an illegitimate child:—female, one year, bronchitis, exhaustion, certified.

A few cases of overcrowding have been dealt with during the year and the nuisance has been abated.

There have been no cases during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bake-houses and slaughter-houses have been inspected at intervals and they have been kept in a cleanly state.

There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

Table I. shows the deaths at various groups of ages during the past eight years and the proportion they bear to 1,000 deaths.

Table II. shows the prevalence of zymotic diseases in each of the past eight years.

Table III. shows the deaths and death-rate from all causes and from various causes in each parish during the past eight years.



Table IV. shows the deaths from zymotic diseases in each parish during the past eight years.

Table V. shows the deaths and death-rate from all causes and from various causes in different localities during the past eight years.

Table A. shows the mortality in 1882, classified according to diseases, ages, and localities.

Table B. shows the new cases of sickness among the pauper population of the district during the past year.

The *general* death-rate was 1,824 in 1851-60 ; 1,649 in 1861-70, while in 1875-82 it was 1,557 per 100,000 persons living.

The *zymotic* death-rate was 402 in 1851-60 , 292 in 1861-70, while in 1875-82 it was 165 per 100,000 persons living.

The *phthisis* death-rate was 285 in 1851-60 ; 221 in 1861-70, while in 1875-82 it was 144 per 100,000 persons living.

The *lung-disease* death-rate was 189 in 1851-60 ; 197 in 1861-70, while in 1875-82 it was 282 per 100,000 persons living.

The death-rate from *heart-disease* during the last eight years has been on the average 129 per 100,000 persons living.

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875 .. ...	169	27	28	4	7	32	71
1876 ... ...	128	28	7	4	9	25	55
1877 ... ...	107	16	10	4	5	27	45
1878 ... ...	141	26	8	4	9	28	66
1879 ... ...	127	20	7	4	6	23	67
1880 ... ...	148	32	20	7	9	34	46
1881 ... ...	114	14	10	6	6	32	46
1882 ... ...	103	9	12	4	4	22	52
Total ... ...	1037	172	102	37	55	223	418
In 1000 Deaths...	1000	166	99	36	52	215	132

TABLE 2.—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1875	...	...	1	2	10	...	...	...	9	1	...	...	...	23	2.7
1876	...	1	4	...	9	1	...	...	4	...	1	...	...	20	2.3
1877	...	...	6	...	1	...	...	...	...	...	...	1	...	8	0.9
1878	...	2	...	...	2	...	1	...	2	...	2	...	...	9	1.0
1879	...	...	...	1	3	...	1	...	2	1	...	1	...	9	1.0
1880	...	1	1	...	24	...	...	...	3	...	...	...	...	29	3.4
1881	...	...	2	3	...	...	...	...	1	...	...	...	...	6	0.7
1882	...	1	1	2	...	...	1	...	...	1	...	...	...	6	0.7
Tl.	...	5	15	8	49	1	3	...	21	3	3	2	...	110	1.6

## THAKEHAM RURAL SANIT

TABLE 3.—Showing the Deaths and Death-rat

PARISH.		Population in middle of period	Mean annual Death-rate per 1,000, all ages.	Deaths from all causes		
				1875-79	1880.	1881.
Pulborough S. D.	North Stoke .....	100	22.5	11	1	3
	Amberley .....	555	21.6	62	7	11
	Rackham .....	153	20.5	14	7	4
	Greatham .....	60	6.2	2	1	...
	Hardham .....	106	15.2	10	...	...
	Cold Waltham ...	400	19.7	33	10	12
	Wiggonholt .....	38	6.6	1	1	...
	Pulborough .....	1821	14.8	155	24	19
	West Chiltington	680	16.0	58	14	10
	Parham .....	80	10.9	7	...	...
Washington S. D.	Storrington .....	1311	13.6	84	16	22
	Sullington.....	210	17.8	22	4	2
	Thakeham.....	570	11.8	37	8	8
	Warminghurst ...	110	22.7	14	5	1
	Ashington.....	260	20.6	28	7	1
	Wiston .....	310	13.3	18	5	5
	Washington ...	860	14.3	67	21	8
	Findon .....	694	15.1	49	17	8
Whole District...		8323	15.5	672	148	114



STRICT, 1875-82.

causes and from various causes in each Parish  
years.

in the eight years.	Mean annual number of deaths.	Total deaths in eight years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
18	2.2	3	3	3	375	375	375
96	12.0	12	6	19	270	135	428
26	3.2	6	4	4	474	316	316
3	0.4	..	...	2	...	...	417
13	1.6	...	...	3	...	...	353
63	7.9	2	13	11	62	406	344
2	0.2	...	...	...	...	...	...
216	27.0	18	22	27	123	151	185
87	10.9	9	8	9	165	147	165
7	0.9	...	...	2	...	...	312
143	17.9	16	14	37	153	133	352
30	3.7	10	1	5	595	59	297
54	6.7	6	3	10	131	65	219
20	2.5	4	1	1	454	113	113
43	5.4	2	4	16	96	192	768
33	4.1	4	4	4	161	161	161
99	12.3	12	5	19	174	72	276
84	10.5	6	8	16	108	144	288
37	129.6	110	96	188	165	144	282

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 8 years, 1875-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping- Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
							Typhus.	Enteric, or Typhoid.	Other or doubtful						
North Stoke .....	103	..	..	..	..	2	..	..	..	1	..	..	..	..	3
Amberley .....	573	..	1	2	2	2	..	..	..	2	..	..	1	..	12
Rackham .....	160	..	1	..	..	4	..	..	..	1	..	..	..	..	6
Greatham .....	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hardham .....	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cold Waltham ..	385	..	..	..	..	2	..	..	..	..	..	..	..	..	2
Wiggonholt .....	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulborough .....	1805	..	1	3	1	7	..	1	..	4	..	1	1	..	18
West Chiltington	666	..	..	..	..	5	..	1	..	2	..	..	..	..	9
Parham .....	88	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Storrington .....	1375	..	1	1	4	7	..	1	..	1	..	1	..	..	16
Sullington .....	194	..	..	3	..	3	..	..	..	3	..	1	..	..	10
Thakeham .....	535	..	..	..	..	4	1	..	..	1	..	..	..	..	6
Warminghurst ...	90	..	..	3	..	..	..	..	..	1	..	..	..	..	4
Ashington .....	250	..	..	..	..	1	..	..	..	1	..	..	..	..	2
Wiston .....	315	..	..	1	..	2	..	..	..	1	..	..	..	..	4
Washington .....	835	..	..	1	..	8	..	..	..	2	1	..	..	..	12
Findon .....	708	..	1	1	1	2	..	..	..	1	..	..	..	..	6
Washington Sub. Dis. Pulborough Sub-district															
Whole District...	8,280	...	5	15	8	49	1	3	—	21	3	3	2	..	110

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82,

LOCALITY.	Population in middle of period.	Deaths during the 8 years 1875-82, from						Annual Death-rate per 100,000 living from			
		All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Pulborough Parish.....	1821	216	18	22	27	18	1482	123	151	185	123
Rest of Pulborough S. D.	2097	308	32	34	51	26	1836	190	202	304	155
Storrington Parish .....	1311	143	16	14	37	12	1363	153	133	352	114
Rest of Washington S. D	3094	370	44	26	73	30	1494	177	105	294	121
Whole District .....	8323	1037	110	96	188	86	1557	165	144	282	129
In 1875 .....	8371	169	23	6	40	14	2018	274	71	477	167
In 1876 .....	8357	128	20	13	13	19	1531	239	155	155	227
In 1877 .....	8343	107	8	9	21	2	1282	95	107	251	24
In 1878 .....	8330	141	9	16	26	11	1692	108	192	312	132
In 1879 .....	8316	127	9	9	26	16	1527	108	108	312	192
In 1880 .....	8302	148	29	15	28	8	1782	349	180	337	96
In 1881 .....	8290	114	6	17	14	8	1375	72	205	168	96
In 1882 ..	8289	103	6	11	20	8	1243	72	132	241	96



TABLE A.—Showing the Deaths during the year 1882, in the Rural District of Washington, showing also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
PULBOROUGH PARISH	1808	1805	60	14	2	1	—	—	4	7	Under 5 ..... 5 upwds
REST OF PULBOROUGH SUB-DISTRICT ...	2090	2085	57	33	4	3	3	1	6	16	Under 5 ..... 5 upwds
STORRINGTON PARISH	1351	1375	40	18	—	3	—	1	6	8	Under 5 ..... 5 upwds
REST OF WASHINGTON SUB-DISTRICT ...	3046	3015	94	26	3	5	1	1	4	12	Under 5 ..... 5 upwds
THAKEHAM WORK-HOUSE ...	—	—	—	11	—	—	—	1	2	8	Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
TOTALS .....	8295	8280	251	102	9	12	4	4	22	51	Under 5 ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....				1	—	—	—	—	—	1	Under 5 ..... 5 upwds
Deaths occurring within the district among persons not belonging thereto .....											Under 5 ..... 5 upwds



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of THAKEHAM, &c.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF THAKEHAM, &c.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Pulborough Parish	Under 5 ..... 5 upwds.		....	....	....	.....	.....
Rest of Pulborough S. D.	Under 5 ..... 5 upwds.		....	2 ..... 1		.....	.....
Storrington Parish	Under 5 ..... 5 upwds	....	....	....	....	....	....
Rest of Washington S. D.	Under 5 ..... 5 upwds	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds.	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds.	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds.	....	....	.....	....	.....	.....
	Under 5 ..... 5 upwds.	....	....	.....	....	.....	.....
Totals .....	Under 5 ..... 5 upwds.		....	2 ..... 1		.....	.....

Sources of information :—In Workhouse and Workhouse Infirmary



Medical Officer of Health, during the year 1882 in the Rural Sanitary  
ording to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.									
Typhoid	other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record
21	22	23	24	25	26	27	28		
		1							
		1			1				
		1		1					
		3		1	1				

Among Out-door Paupers, 164. In Worthing Infirmary—In patients, 6;  
nurses, 33.



## RURAL SANITARY DISTRICT OF EAST PRESTON.

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POPULATION, 7,674 IN 1871 ; 8,058 IN 1881. AREA IN  
ACRES, 30,696. NO. OF HOUSES (1881) 1662.

DURING the year 1882 the births of 266 children and the deaths of 97 persons were registered ; of the births 143 were male and 123 were female ; of the deaths 54 were male and 43 were female.

There were 108 deaths actually registered in this district, but of this number 12 belonged to other districts, although they died in the East Preston Workhouse ; there was one death in the Worthing Infirmary of a person belonging to this district.

There were 15 deaths in the East Preston Union Workhouse and these have been distributed among the several parishes whence each inmate came, viz., Broadwater 1, East Preston 1, Leominster 1 ; of the remaining 12 deaths 5 belonged to Worthing, 3 to Littlehampton and 4 to Arundel, all of which are Urban Sanitary Districts.

In each parish the deaths were thus distributed :—

Broadwater 9, Heene 4, West Tarring 10, Clapham 2, Durrington 1, Goring 2, Ferring 4, Kingston 1, East Preston 3, Angmering 14, Leominster (part of) 19, Rustington 6, Climping 4, Ford 0, Tortington 3, Poling 4, Patching 3, Leominster (part of) 1, Burpham 4. South Stoke 2, Houghton 1, in all 97.

The births and deaths in the whole of the district during the past eight years have been as follows :—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1875	...	214	29·0	131	17·7
1876	...	220	29·4	126	16·8
1877	...	234	30·8	131	17·2
1878	...	235	30·4	131	16·9
1879	...	234	30·0	125	15·9
1880		256	32·2	121	15·2
1881		233	28·8	128	15·8
1882		266	32·3	97	11·7



In each quarter the births and deaths were as follows :—

		Births.				Deaths.		
		M.	F.	Total.		M.	F.	Total.
1st Quarter	..	47	40	87		19	12	31
2nd	„	35	34	69		13	8	21
3rd	„	36	28	64		13	13	26
4th	„	25	21	46		9	10	19
Total		143	123	266		54	43	97

The birth-rate seems to vary very slightly in each quarter when a series of years is taken for comparison :—

		1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	..	53	57	55	87	252	63
2nd	„	54	65	56	69	244	61
3rd	„	45	62	70	64	241	60
4th	„	82	72	52	46	252	63
Total		234	256	233	266	989	247

The following table shows the birth-rate in each sub-district during the past six years.

Sub-district	1877.	1878.	1879.	1880.	1881.	1882.	Mean.
Worthing	30·9	28·9	27·3	33·1	29·8	31·6	30·2
Littlehampton	31·2	31·5	32·2	29·5	28·6	33·4	31·0
Arundel	29·5	31·0	28·7	37·5	27·2	30·7	30·7
Total	30·8	30·4	30·0	32·2	28·8	32·3	30·7

The birth-rate varies very slightly in each sub-district. There is a great excess of births over deaths; in the last four years there were 989 births and 471 deaths. The natural increase of population by excess of births over deaths was therefore 518. The estimated increase of population during the same period is 520, so that the two numbers very closely correspond; this result is chiefly due to the increase in Broadwater and Wick, while in the other parishes there is either a loss or a very slight increase.

The birth-rate in 1882 throughout England and Wales was equal to 33·7 per 1000 persons estimated to be living in the middle of the year; it showed, according to the Registrar General, a further slight decline from the steadily decreasing rates in the five preceding years, and it was lower than the rate recorded in any year since 1858, when it was also 33·7.

The deaths at various groups of age in each quarter are here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter ..	5	4	2	2	9	9	31
2nd „ ..	4	2	—	—	9	6	21
3rd „ ..	1	7	1	3	4	10	26
4th „ ..	5	1	—	—	3	10	19
	—	—	—	—	—	—	—
Total ..	15	14	3	5	25	35	97

On comparing this result with Table I, it will be seen that only one sixth of the deaths are under one year of age, while nearly two-fifths die aged sixty years of age and upwards.

Taking the average of the last eight years it appears that the deaths are most numerous in the first quarter of the year, while in the remaining quarters they are very nearly equal.

	1875-78.	1879.	1880.	1881.	1882.	Total.	Mean.
1st Quarter ..	146	43	25	46	31	291	36
2nd “ ..	135	18	29	33	21	236	29
3rd “ ..	123	27	28	27	26	231	29
4th “ ..	115	37	39	22	19	232	29
	—	—	—	—	—	—	—
Total..	519	125	121	128	97	990	123

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year:—

	Births.	Dths. under 1 year	Ratio to 1,000 Births.
Worthing Sub-District	94	6	63
Littlehampton .....	130	6	46
Arundel .....	42	3	71
	—	—	—
Whole of District	266	15	56

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1,000 children born against 158, 146, 136, 152, 135, 153 and 130 in the seven preceding years.

The following table shows the rate of infant mortality in each sub-district during the past seven years:—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean
Worthing Sub-District ....	183	71	75	103	179	80	63	107
Littlehampton....	49	90	97	77	72	101	46	73
Arundel .....	20	75	119	179	39	108	71	87
	—	—	—	—	—	—	—	—
Whole of District	86	81	93	102	105	94	56	88

The fifteen infantile deaths included 2 from whooping cough, 3 from convulsions, 3 from lung diseases, 6 from infantile debility, and 1 from premature birth.

The deaths from *zymotic*, or catching, disorders were 7 in number.

There were 5 deaths from whooping-cough, 1 from diphtheria, and 1 from enteric fever.

In the seven preceding years there were respectively 5, 20, 11, 14, 1, 16 and 20 deaths from this group of disorders.

The rate of mortality from these diseases during the past year was 0·8 per 1,000 persons living against a rate of 0·6, 2·6, 1·4, 1·8, 0·1, 2·0 and 2·4 in the seven preceding years.

In the last eight years there have been altogether 94 deaths in this class, or a mean annual rate of 1·5 per 1,000.

The death from *enteric fever* took place at Ferring, and the case is mentioned at p. 53 of my last Annual Report.

There was one death from *diphtheria* at Wick, in the parish of Leominster. Ellen B., aged 6 years, a delicate child, was taken ill the last week in September and died on October 10th. There were seven other children in the house, but they were not affected. There were no drains in the house, and the water was of good quality; several other people drank the same water and they were in good health. In another family, about 300 yards away, one girl (9 years) had a sore throat for a few days, but she soon recovered. The children were kept away from school, and there was no further spread of the disorder. There was no outbreak of *zymotic* disease during the year which requires any special mention.

Inquests were held in three cases:—Male, 30 years, poisoned by taking cyanide of potassium; male, 21 years, accidentally thrown from horse; female, 42 years, found suffocated in a tank of water.

There was one death returned as “not certified” in the Worthing sub-district—male, 36 hours, inanition. There were three deaths returned as “not certified” in the Littlehampton district—male, 9 years, disease of the heart from birth; male, 2 days, convulsions; male, 71 years, heart disease.

All the deaths in the Arundel sub-district were certified.

There was only one death of an illegitimate child out of 266 births—male, 6 months, inflammation, exhaustion, certified.

There were a few cases of overcrowding during the year, and the nuisance was stated.

No cases occurred in which it was necessary to condemn meat or any other article of food exposed for sale. The bake-houses and slaughter-houses have been inspected at intervals, and they have been kept in a cleanly state.



There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

The following tables show in a statistical form the condition of the district during the past eight years.

Table I. shows the deaths at various groups of ages, and the proportion they bear to 1,000 deaths.

Table II. shows the deaths and death-rate in each year from zymotic diseases.

Table III. shows the deaths and death-rate from all causes and from various causes in each parish of the district during the past eight years.

Table IV. shows the deaths from zymotic diseases in each parish in the past eight years.

Table V. shows the deaths and death-rate from all causes and from various causes in different localities in the last eight years.

Table A. shows the mortality in 1882, classified according to diseases, ages, and localities.

Table B. shows the new cases of sickness among the pauper population of the district during the past year.

The *general* death-rate was 1790 in 1851-60 ; 1822 in 1861-70, while in 1875-82 it was 1592 per 100,000 persons living.

The *zymotic* death-rate was 335 in 1851-60 ; 309 in 1861-70, while in 1875-82 it was 151 per 100,000 persons living.

The *phthisis* death-rate was 297 in 1851-60 ; 259 in 1861-70, while in 1875-82 it was 167 per 100,000 persons living.

The *lung-disease* death-rate was 166 in 1851-60 ; 221 in 1861-70, while in 1875-82 it was 201 per 100,000 persons living.

The death-rate from *heart-disease* during the last eight years has been on the average 165 per 100,000 persons living.



## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875 .. ...	131	19	8	9	8	40	47
1876 ... ..	126	19	24	8	7	28	40
1877 ... ..	131	19	9	15	9	27	52
1878 ... ..	131	22	18	3	6	27	55
1879 ... ..	125	24	6	5	8	27	55
1880 ... ..	121	27	9	6	3	31	45
1881 ... ..	128	22	5	13	7	28	53
1882 ... ..	97	15	14	3	5	25	35
Total ... ..	990	167	93	62	53	233	382
In 1000 Deaths...	1000	169	94	63	53	235	386

TABLE 2,—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1875	...	...	...	...	1	...	1	...	3	...	...	...	...	5	0·6
1876	...	3	4	2	2	...	1	1	6	...	1	...	...	20	2·6
1877	...	...	4	2	...	...	3	...	2	...	...	...	...	11	1·4
1878	...	...	2	2	4	...	1	...	3	...	...	...	...	14	1·8
1879	...	...	...	...	...	...	1	...	...	...	...	...	...	1	0·1
1880	...	1	1	2	2	...	3	...	6	...	1	...	...	16	2·0
1881	...	...	5	9	1	...	...	...	1	2	1	...	1	20	2·4
1882	...	...	...	1	5	...	1	...	...	...	...	...	...	7	0·8
Tl.	...	4	16	18	15	...	11	1	23	2	3	...	1	94	1·5



## EAST PRESTON RURAL SANITARY DISTRICT

TABLE 3.—Showing the Deaths and Death-rate for the years 1875-79, 1880, 1881, and 1882.

PARISH.		Population in middle of period	Mean annual Death-rate per 1,000, all ages.	Deaths from all causes			
				1875-79	1880.	1881.	1882.
Worthing S. D.	Broadwater.....	820	18.2	72	22	17	
	Heene .....	155	28.2	28	1	2	
	West Tarring.....	680	17.2	56	18	10	
	Clapham .....	240	14.5	21	2	3	
	Durrington.....	170	20.6	21	2	4	
	Goring .....	490	18.6	50	8	13	
Littlehampton S. D.	Ferring .....	235	13.3	14	5	2	
	Kingston .....	30	16.6	1	1	1	
	East Preston .....	410	9.0	22	4	1	
	Angmering .....	995	15.1	78	12	17	
	Leominster, part of	1470	15.6	112	22	31	
	Rustington .....	360	13.6	28	1	4	
Arundel S. D.	Climping.....	265	10.1	13	2	3	
	Ford .....	95	9.4	7	...	...	
	Tortington .....	165	17.4	19	...	1	
	Poling .....	180	27.0	26	5	4	
	Patching.....	270	14.3	17	6	5	
	Leominster, part of	135	18.5	15	2	2	
	Burpham.....	286	11.8	17	3	3	
	South Stoke .....	124	17.1	8	5	2	
	Houghton ... ..	195	14.7	19	...	3	
Whole District...		7770	15.9	644	121	128	

RICT, 1875-82.

causes and from various causes in each Parish  
rs.

years.	Mean annual number of deaths.	Total deaths in eight years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
0	15.0	14	15	17	213	228	259
5	4.3	4	4	2	322	161	161
4	11.7	10	7	11	183	128	200
3	3.5	2	2	4	104	104	208
3	3.5	2	1	7	147	73	514
3	9.1	10	9	9	255	230	230
5	3.1	3	3	2	159	159	106
4	0.5	...	1	...	...	416	...
0	3.7	3	6	4	91	183	122
1	15.1	9	8	14	112	100	175
4	23.0	22	27	23	187	229	195
9	4.9	1	3	5	34	104	173
2	2.7	1	1	2	47	47	94
7	0.9	...	...	...	...	...	...
3	2.9	2	...	2	151	...	151
0	4.9	3	5	5	208	347	347
.	3.9	3	4	5	139	185	231
0	2.5	1	3	2	92	277	184
.	3.4	2	...	4	87	...	174
.	2.1	1	3	2	100	302	201
8	2.9	1	2	5	64	128	322
	123.7	94	104	125	151	167	201

## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82.

LOCALITY.	Deaths during the 8 years 1875-82, from				Annual Death-rate per 100,000 living from						
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Worthing S. D.	2790	403	45	41	52	34	1805	201	183	233	152
Littlehampton S. D.	3625	407	36	46	48	38	1403	124	158	165	131
Arundel S. D.	1355	180	13	17	25	31	1660	120	156	230	286
Whole District .....	7770	990	94	104	125	103	1592	151	167	201	165
In 1875 .....	7368	131	5	16	15	17	1777	67	217	203	230
In 1876 .....	7478	126	20	15	14	8	1684	267	200	187	107
In 1877 .....	7593	131	11	14	15	17	1725	144	184	197	223
In 1878 .....	7710	131	14	17	18	11	1699	181	220	233	142
In 1879 .....	7832	125	1	7	19	12	1596	12	89	242	153
In 1880 .....	7955	121	16	15	15	9	1521	201	188	188	113
In 1881 .....	8080	128	20	12	15	15	1584	247	148	185	185
In 1882 ..	8230	97	7	8	14	14	1178	85	97	170	170



## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 8 years, 1875-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping- Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia,	Puerperal Fever.	TOTAL.
Broadwater .....	875	..	..	5	1	2	..	2	..	2	1	..	..	1	14
Heene .....	160	..	..	1	1	..	..	1	..	1	..	..	..	..	4
West Tarring ..	750	..	..	2	1	1	..	1	..	4	..	1	..	..	10
Clapham .....	240	..	..	1	..	..	..	..	..	1	..	..	..	..	2
Durrington .....	185	..	..	..	1	..	..	1	..	..	..	..	..	..	2
Goring .....	535	..	..	1	7	..	..	..	..	2	..	..	..	..	10
Ferring .....	230	..	..	1	..	..	..	2	..	..	..	..	..	..	3
Kingston .....	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..
East Preston.....	435	..	..	..	..	2	..	..	1	..	..	..	..	..	3
Angmering .....	1000	..	2	2	3	2	..	..	2	..	..	..	..	..	9
Leominster, part of	1680	..	..	1	4	5	..	1	9	..	..	..	..	..	22
Rustington .....	360	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Climping .....	280	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Ford .....	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tortington .....	170	..	1	..	..	..	..	1	..	..	..	2	..	..	2
Poling .....	180	..	..	..	..	1	..	..	..	..	..	..	..	..	3
Patching .....	275	..	1	1	..	..	..	1	..	..	..	..	..	..	3
Leominster, part of	125	..	..	..	..	..	..	1	..	..	1	..	..	..	1
Burpham .....	285	..	..	..	..	..	..	..	1	..	..	..	..	..	2
South Stoke .....	135	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Houghton .....	195	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Whole District ...	8,230	..	4	16	18	15	..	3	1	23	2	3	..	1	94

Arundel Sub-District. Littlehampton S. D. Worthing Sub. Dis.

TABLE A.—Showing the Deaths during the year 1882, in the Rural District showing also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
WORTHING SUB-DISTRICT ..	2910	2975	94	30	6	2	1	3	10	8	Under 5. ..... 5 upwds
LITTLEHAMPTON SUB-DISTRICT ...	3786	3890	130	45	6	9	2	2	11	15	Under 5. ..... 5 upwds
ARUNDEL SUB-DISTRICT. ...	1362	1365	42	18	3	3	—	—	4	8	Under 5. ..... 5 upwds
EAST PRESTON WORK-HOUSE ...	—	—	—	15	1	—	—	—	2	12	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	8058	8230	266	108	16	14	3	5	27	43	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....				1	—	—	—	—	—	1	Under 5. ..... 5 upwds
Deaths occurring within the district among persons not belonging thereto .....				12	1	—	—	—	2	9	Under 5. ..... 5 upwds

PRESTON, classified according to Diseases, Ages, and Localities, and the Births therein during the year.

ALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

[illegible]



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of EAST PRESTON, classed according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF EAST PRESTON, CLASSED ACCORDING TO THE NATURE OF THE SICKNESS.						
	1	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Worthing Sub-district	Under 5 ..... 5 upwds.	..... ..	2 ..... 14	..... 2	.....	.....	.....
Littlehampton Sub.-Dist.	Under 5 ..... 5 upwds.	.....	..... 2	.....	.....	.....	8 ..... 2
Arundel Sub.-Dist.	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	1 .....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
Totals .....	Under 5 ..... 5 upwds.	.....	2 ..... 16	..... 2	.....	.....	9 ..... 2

Sources of information :—In Workhouse and Workhouse Infirmary,

Medical Officer of Health, during the year 1882 in the Rural Sanitary  
ing to Localities and Diseases.

E. DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS  
E.

[illegible]

ing Out-door Paupers, 291. In Worthing Infirmary—In patients, 7 ;  
233.





## RURAL SANITARY DISTRICT OF MIDHURST.

POPULATION, 13,051 IN 1871 ; 13,964 IN 1881. AREA IN ACRES, 66,571. NO. OF HOUSES (1881), 2,797.

DURING the year 1882 the births of 438 children and the deaths of 240 persons were registered ; of the births 226 were male and 212 were female, of the deaths 116 were male and 124 were female.

There were eight deaths in Easebourne Workhouse and these have been distributed among the several parishes whence each inmate came, viz., Tillington 1, Cocking 1, Midhurst 2, Fernhurst 1, Rogate 1, Harting 2 ; in all 8.

In each parish the deaths were thus distributed :—East Lavington 0, West Lavington 1, Tillington 11, Lodsworth 13, Selham 0, Heyshott 12, Graffham 7, Cocking 6, Midhurst 32, Woolbeding 6, Easebourne 18, South Ambersham 2, North Ambersham 2, Lurgashall 6, Fernhurst 26, Linchmere 7, Linch 1, Stedham 11, Iping 6, Trotton 1, Chithurst 3, Terwick 2, Rogate 19, Harting 28, Elsted 5, Treyford 3, Didling 3, Bepton 3 ; in all 240.

The births and deaths in the whole of the district during the past seven years have been as follows :—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1876	...	406	30·0	221	16·3
1877	...	429	31·5	189	13·9
1878	...	419	30·6	222	16·2
1879	...	414	30·0	233	16·8
1880	...	424	30·5	198	14·2
1881	...	412	29·4	205	14·6
1882	...	438	31·0	240	17·0
Total		2942	30·4	1508	15·5

In each quarter the births and deaths were as follows :—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter	63	62	125	27	36	63
2nd „	60	54	114	33	33	66
3rd „	54	50	104	31	25	56
4th „	49	46	95	25	30	55
Total ..	226	212	438	116	124	240

On comparing the births in the corresponding quarters of the past four years, the mean number born is highest in the first quarter, and lowest towards the close of the year :—

	1879.	1880.	1881.	1882.	Total.	Mean
1st Quarter	96	127	123	125	471	118
2nd „	87	102	106	114	409	102
3rd „	125	104	94	104	427	107
4th „	106	91	89	95	381	95
Total ..	414	424	412	438	1688	422

The following table shows the birth-rate in different localities during the past seven years.

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean.
Midhurst								
Parish	19·4	27·6	26·0	25·1	29·2	25·32	6·1	25·5
Rest of Mid.								
Sub-Dist.	22·3	30·2	32·9	29·0	28·6	29·0	29·0	28·7
Fernhurst								
Sub-Dist.	22·4	35·8	28·7	32·6	32·3	32·8	34·8	31·3
Harting								
Sub-Dist.	24·7	32·0	30·6	31·3	32·0	29·6	32·9	30·4
Whole Dist.	30·0	31·5	30·6	30·0	30·5	29·4	31·0	30·4

There is evidently a considerable difference in the birth-rate in different parts of the district, and this arises from the age-distribution of the population. The last census showed a considerable increase, but many retired people come to live in the district, and in some parts therefore the child-bearing portion of the community is less than in others, and hence the birth-rate is low.

The excess of births over deaths is very marked ; in the last four years there were 1688 births and 876 deaths. The natural increase of population by excess of births over deaths was, therefore, 812. The estimated increase of population during the same period is only 409, so that here, as elsewhere, there is a considerable migration to other districts.

The birth-rate in 1882 throughout England and Wales was equal to 33·7 per 1000 persons estimated to be living in the middle of the year; it showed, according to the Registrar-General, a further slight decline from the steadily decreasing rates in the five preceding years, and was lower than the rate recorded in any year since 1858, when it was also 33·7.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter	20	5	3	1	15	19	63
2nd „	16	5	8	6	10	21	66
3rd „	8	12	3	2	21	10	56
4th „	9	6	7	1	7	25	55
	—	—	—	—	—	—	—
Total ..	53	28	21	10	53	75	240

On comparing this result with Table I. it will be seen that less than one-fifth die under one year of age, while more than two-fifths die aged 60 years and upwards.

Taking the average of the last seven years, it appears that the deaths are most numerous in the first quarter of the year, and lowest in the autumn months,

	1876-79.	1880.	1881.	1882.	Total.	Mean
1st Quarter .....	254	66	55	63	438	63
2nd “ .....	218	57	53	66	394	56
3rd “ .....	189	39	46	56	330	47
4th “ .....	204	36	51	55	346	49
	—	—	—	—	—	—
Total.....	865	198	205	240	1508	215

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year : —

	Births.	Dths. under 1 year	Ratio to 1,000 Births.
Midhurst Parish .....	43	8	186
Rest of Midhurst Sub-District	145	14	96
Fernhurst Sub-District .....	86	10	116
Harting Sub-District .....	164	21	128
	—	—	—
Whole of District	438	53	121

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years. This proportion of



infant mortality averaged 146 per 1000 during the ten years 1872-81, while in this district it averaged 89 during the seven years 1876-82.

The 53 infantile deaths in 1882 included one from measles, four from whooping-cough, one from erysipelas, one from meningitis, five from convulsions, ten from lung diseases, one from enteritis, nineteen from debility, six from premature birth, two from malformation, two from teething, and one from umbilical hæmorrhage.

The following table shows the ratio of infant mortality in different localities during the past seven years:—

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	Mean
Midhurst Parish	66	116	97	50	87	146	186	107
Rest of Midhurst								
Sub-District..	65	41	93	99	99	69	96	80
Fernhurst S. D..	134	83	59	115	77	87	116	96
Harting S. D...	75	76	93	97	88	74	128	90
	—	—	—	—	—	—	—	—
Whole of District	80	70	88	96	89	82	121	89

The deaths from *zymotic*, or catching disorders, were 32 in number, against 11, 24, 23, 12, 9, and 19 in the six preceding years.

The thirty-two deaths included five from measles, seven from scarlatina, six from whooping-cough, nine from diphtheria, one from enteric fever, one from diarrhœa, two from erysipelas, and one from rheumatic fever.

The rate of mortality from these diseases was 2·2 per 1000 persons living, against a rate of 0·8, 1·7, 1·6, 0·8, 0·6, and 1·3 in the six preceding years. Throughout England and Wales the annual death-rate from the seven principal *zymotic* diseases alone was 2·64 per 1000 against a rate of 2·44, 3·30, and 2·24 in the three preceding years.

*Small-pox* appeared in the district in connexion with rag-sorting at Iping Paper Mills. The mill is situated in the village of Iping, close to the river, the rags being sorted in an airy building on one side of the stream, while the paper is made in a building on the other side of the river. Out of an average of about 18 women engaged in rag-sorting two were attacked with small-pox early in May; at the time of the outbreak there were only ten female sorters. There is no storing of the sorted rags, and about forty-eight hours usually elapse between the unpacking of a bale and the conversion of the rags into paper. The English bags contained rags about four months old, while the foreign bales contained rags from nine to twelve months old. It was quite impossible to trace the outbreak to any particular bale, either English or foreign, as no record was kept. The two

women worked close together, and in common with some others they had rags sorted out to them from the same bale. Since only two caught small-pox it seems probable that only a small portion of the bale was infected, and it will be noticed that these infected rags had probably been in the bale some months before being used.

1. Mrs. S., 44 years of age, a rag sorter in Iping Mill, was at work every day except Sunday from April 17th to May 8th, when in the evening she felt poorly and sick; on May 12th the rash of small-pox appeared. She lived in a cottage at Stedham, about a mile distant from Iping, with her husband and three children.

Mrs. S. had two fair marks of vaccination; she had a moderate attack and recovered. All the inmates had been successfully vaccinated in infancy, and none of them now caught the disorder.

Henry S., 50 years, revaccinated successfully.

James S., 20 years, 3 good marks, sent away to lodge elsewhere.

Charles S., 11 years, 3 good marks, revaccinated, partial success.

Emily S., 8 years, 3 good marks, revaccinated, partial success.

The husband was ill at the time with bronchitis; he and the two younger children remained in the house.

2. Mrs. B., 26 years, a rag sorter employed at Iping Mill, lived at Moorhouse, a lonely spot about three miles from Stedham, and more than two miles from the paper mill. She was taken ill on May 6th, and the rash of small-pox appeared on May 10th; she had been successfully vaccinated in infancy, and now, after a moderate attack, she made a good recovery.

The other inmates of the house were the husband, who was revaccinated successfully on May 14th, and a son, Charles B., 5 years, who had four good marks, and was not revaccinated.

Next door there lived two adults and five young children; the adults were revaccinated successfully on May 14th; all the children had good marks.

There was here also no spread of the disease.

In each case the inmates of the two cottages were kept at home, and they were daily supplied with food, necessaries, &c.

When the patients recovered the bedding and some of the clothing was burnt at the cost of the Sanitary Authority; the houses were well fumigated with burning sulphur on June 2nd and afterwards limewashed.

*Scarlet Fever* was very prevalent at Harting in the autumn.

The disease had been absent from the parish for about 17 years, but on this occasion it appeared with great virulence. There are three hamlets in the parish, known as East Harting,



South Harting, and West Harting, and the fever appeared in each of them. At one cottage three children died in the last week of October, after a very short illness, and within five weeks there were four more deaths ; most of the cases were of a malignant nature, and in one or two the rash seemed suppressed. The children were kept from school, and in fact the two schools were closed altogether for several weeks, yet still the disease spread through the village. Very few adults were attacked, and none of them died. The mortality was far greater at the commencement of the outbreak than towards the close, when many of the cases were very mild. There were no sanitary defects to account for either the spread or for the virulence of the disease ; in many cases the houses were very clean and neat, and in all the water supply was good. There seemed to be no one condition common to all except the fact that as the disease rarely appears in this locality there had arisen in course of years a generation of children who had not been protected either by their parents having had the disease or by previous attacks. In the cottage where all the children died in a few days only one of the parents had had scarlet fever. The disease seemed to spread from one house to another by means of the air ; in many cases there could not have been any direct communication. Nearly every cottage stood in a garden, so that if isolation alone could have stopped the disease, it ought to have been effectual here. Each house was fumigated with burning sulphur, and afterwards limewashed when the children were sufficiently recovered, but three or four months elapsed before the disease was stamped out.

It did not appear that the weather had much effect on the disease, for at the same time scarlet fever was very prevalent at Warnham, in the Horsham district. From October to December scarlet fever appeared in fifteen cottages at Warnham, occupied by 32 adults and 61 children ; of the adults none were attacked ; of the children 45 were attacked and 16 escaped, but in no case was the disease very severe, and there were no deaths.

At Harting scarlet fever appeared in 16 houses, containing 38 adults and 65 children ; of the adults four were attacked, 34 escaped, and none died ; of the children 32 were attacked, 33 escaped, and there were seven deaths.

It frequently happens that a solitary case of scarlet fever appears, and the ordinary precautions being taken, there is no spread ; in other years, when similar measures are adopted and carried out, the disease seems to spread in spite of anything that is done. In 1876 this disorder was very prevalent along the South Coast, and then also it was most frequent in the autumn.



*Diphtheria* caused nine deaths. At a lonely farm-house in the parish of Trotton a child seven years of age died on September 26th, the mother died on October 8th, and a sister on October 9th. There were only three cases, and all three died. The house lay in a hollow on a clay soil, and at this time the ground was very wet; the house was roomy and well built, and free from any drains. The place was fumigated, and there were no more cases. There was no history of contagion, and apparently no cause for the disease except the wet soil and the dampness of the air in this low-lying locality.

This disease appeared also at Heyshott in June and July; it prevailed here in the autumn of the year 1881. This village is built on a stiff, impervious gault. (See Report VIII. p. 64). In the month of June the mean temperature of the air was much below the average, and it rained nearly every day, so that the air was constantly damp, and there was but little sunshine.

*Inquests* were held in nine cases. Male, 14 years, accidentally killed by discharge of gun; male, hæmorrhage from rupture of umbilical cord; male, 67 years, accidentally killed by a railway engine; male, 63 years, suicide by drowning whilst of unsound mind; male, 58 years, suicide by hanging whilst insane; female, 60 years, suicide by placing herself in front of a passing train whilst insane; male, 45 years, accidentally killed by machinery; male, 41 years, accidental fall from haycart; male, 35 years, suicide by shooting whilst of unsound mind.

There were four deaths in Midhurst sub-district returned as "not certified" out of a total of 108 deaths:—Female, 10 days, debility from birth; female, 82 years, natural decay; female, a few minutes, premature birth; female, 4 years, diphtheria.

There were no deaths in Fernhurst sub-district returned as "not certified," out of a total of 42 deaths.

There were five deaths in Harting sub-district returned as "not certified," out of a total of 90 deaths:—Male, 76 years, asthma; male, 11 months, whooping cough, heart disease; female, 11 months, measles; male,  $2\frac{1}{2}$  years, chronic bronchitis; female, 31 years, child-birth.

There were four deaths of children born out of wedlock out of a total of 438 births:—Male, 3 months, inanition, certified; female, 5 years, convulsions, certified; male, hæmorrhage, &c., inquest held; female, 16 months, tabes, certified.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There was no case during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bake-houses and slaughter-houses have been inspected at intervals, and they have been kept in a cleanly state.

No proceedings were taken before the magistrates during the year.

Table I. shows the deaths at various groups of ages during the past eight years, and the proportion they bear to 1 000 deaths.

Table II. shows the prevalence of zymotic diseases in each of the past eight years.

Table III. shows the deaths and death-rate from all causes and from various causes in each parish during the past eight years.

Table IV. shows the deaths from zymotic diseases in each parish during the past eight years.

Table V. shows the deaths and death-rate from all causes and from various causes in different localities during the past eight years.

Table A. shows the mortality in 1882, classified according to diseases, ages, and localities.

Table B. shows the new cases of sickness among the pauper population of the district during the past year.

The *general* death-rate was 1,818 in 1851-60 ; 1,760 in 1861-70, while in 1876-82 it was 1,562 per 100,000 persons living.

The *zymotic* death-rate was 321 in 1851-60 ; 243 in 1861-70, while in 1876-82 it was 134 per 100,000 persons living.

The *phthisis* death-rate was 275 in 1851-60 ; 215 in 1861-70, while in 1876-82 it was 159 per 100,000 persons living.

The *lung-disease* death-rate was 176 in 1851-60 ; 194 in 1861-70, while in 1876-82 it was 192 per 100,000 persons living.

The death from *heart-disease* during the past seven years has been on the average 170 per 100,000 persons living.

## MIDHURST RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 7 years 1876-82,

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 ... ..	221	36	14	10	5	60	96
1877 ... ..	189	30	15	12	9	50	73
1878 ... ..	222	37	20	21	8	49	87
1879 ... ..	233	40	16	11	8	50	108
1880 ... ..	198	38	17	7	11	37	88
1881 ... ..	205	34	22	10	9	42	88
1882 ... ..	240	53	28	21	10	53	75
Total ... ..	1508	268	132	92	60	341	615
In 1000 Deaths...	1000	178	87	61	40	226	408

TABLE 2,—Showing the Deaths and Death-rate in each of the 7 years 1876-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1876	2	..	1	2	..	..	4	..	1	..	1	..	..	11	0·8
1877	..	2	2	3	9	1	1	1	1	3	1	..	..	24	1·7
1878	2	4	..	2	3	..	4	1	6	..	..	..	1	23	1·6
1879	..	1	..	6	1	..	1	..	1	2	..	..	..	12	0·8
1880	..	..	..	1	4	..	..	..	3	..	1	..	..	9	0·6
1881	..	..	3	4	1	..	6	..	1	1	2	..	1	19	1·3
1882	..	5	7	9	6	..	1	..	1	1	2	..	..	32	2·2
Tl.	4	12	13	27	24	1	17	2	14	7	7	..	2	130	1·3



## MIDHURST RURAL SANITARY

TABLE 3.—Showing the Deaths and Death-rate from  
in

PARISH.				Population in middle of period	Mean annual Death-rate per 1,000, all ages.	Deaths from all causes			
						1876-79	1880.	1881.	1882.
Midhurst Sub-district.	{	East Lavington ...	220	9.7	10	3	2		
		West Lavington ...	165	12.1	6	3	4		
		Tillington ... ..	875	17.1	68	14	12		
		Lodsworth ... ..	670	16.2	38	10	15		
		Selham ... ..	60	16.6	6	1	...		
		Heyshott ... ..	435	18.0	30	2	11		
		Graffham ... ..	420	13.9	24	8	2		
		Cocking ... ..	564	15.7	34	9	13		
		Midhurst ... ..	1590	16.8	120	14	22		
		Woolbeding ... ..	360	17.4	27	6	5		
		Easebourne ... ..	1005	14.6	60	13	12		
		South Ambersham	120	17.8	9	1	3		
Fernhurst-Sub-dist.	{	North Ambersham	165	9.5	7	...	2		
		Lurgashall ... ..	735	13.8	42	15	8		
		Fernhurst ... ..	1050	17.0	65	14	20		
		Linchmere ... ..	342	15.4	21	4	5		
		Linch ... ..	98	7.3	1	2	1		
		Stedham ... ..	535	17.3	38	11	5		
		Sping ... ..	510	10.3	23	2	6		
		Trotton ... ..	415	16.1	23	11	6		
		Chithurst ... ..	320	11.1	12	5	5		
		Terwick ... ..	175	13.0	11	1	2		
		Rogate ... ..	990	14.8	57	14	13		
		Harting ... ..	1275	16.9	79	23	21		
Harting Sub-district.	{	Elsted ... ..	200	22.8	16	8	3		
		Treyford ... ..	145	20.6	14	...	4		
		Didling... ..	90	22.2	8	3	...		
		Bampton ... ..	260	12.6	16	1	3		
Total ... ..				13789	15.6	865	198	205	

STRICT, 1876-82.

causes and from various causes in each Parish  
years.

in the seven years.	Mean annual number of deaths.	Total deaths in seven years from			Mean Annual Death-rate per 100,000 living from		
		Zymotic Disease.	Phthisis.	Lung Disease.	Zymotic Disease.	Phthisis.	Lung Disease.
15	2.1	2	1	...	129	64	...
14	2.0	...	2	...	...	173	...
05	15.0	10	18	9	163	293	147
76	10.8	5	11	4	106	234	85
7	1.0	...	...	...	...	...	...
55	7.8	12	2	10	394	65	328
41	5.8	3	9	4	101	305	136
62	8.8	4	9	9	101	228	228
88	26.8	11	18	24	98	161	215
44	6.3	3	1	6	119	39	238
03	14.7	3	11	12	42	156	170
15	2.1	1	1	2	119	119	238
11	1.5	1	2	2	87	173	173
71	10.1	10	8	11	194	155	213
25	17.8	11	16	21	149	217	285
37	5.3	4	1	8	167	42	334
5	0.7	...	1	...	...	145	...
65	9.3	5	5	5	133	133	133
37	5.3	2	2	8	56	56	224
47	6.7	10	6	7	344	206	240
25	3.5	1	2	6	43	87	261
16	2.3	..	1	4	..	81	326
03	14.7	8	7	5	115	101	72
51	21.5	16	10	20	179	112	224
32	4.5	5	4	3	357	286	214
21	3.0	...	2	2	...	197	197
14	2.0	2	2	1	317	317	158
23	3.3	1	2	3	54	109	164
08	215.4	130	154	186	134	159	192

## MIDHURST RURAL SANITARY DISTRICT.

TABLE .4—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 7 years 1876-82.

LOCALITY.	Deaths during the 7 years 1876-82, from							Annual Death-rate per 100,000 living from			
	Population in middle of period.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Midhurst Parish .....	1590	188	11	18	24	17	1689	98	161	215	152
Rest of Midhurst S. D....	4894	537	43	65	56	59	1567	125	189	163	172
Fernhurst S. D. ....	2390	249	26	28	42	25	1530	155	167	251	149
Harting S. D. ....	4915	534	50	43	64	64	1552	145	125	186	186
Whole District .....	13789	1508	130	154	186	165	1562	134	159	192	170
In 1876 .....	13501	221	11	22	19	31	1636	81	162	140	229
In 1877 .....	13595	189	24	27	11	18	1390	176	198	80	132
In 1878 .....	13691	222	23	23	28	24	1621	168	168	204	175
In 1879 .....	13789	233	12	26	31	32	1689	87	188	224	232
In 1880 .....	13884	198	9	21	28	21	1425	64	151	201	151
In 1881 .....	13987	205	19	14	33	20	1465	135	100	236	143
In 1882 .....	14100	240	32	21	36	19	1702	227	149	255	134



## MIDHURST RURAL SANITARY DISTRICT.

TABLE 5.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 7 years, 1876-82.

PARISH.	Populat in 188	Small P	Measles	Scarlati	Diphth	Whoopi Cough	Typhus.	Enteric, Typhoid	Other or doubtful	Diarrhoea Dysen	Rheuma Fever	Erysipel	Pyæmia	Puerper Fever	TOTAL.
East Lavington ..	225	..	..	..	..	..	..	2	..	..	..	..	..	..	2
West Lavington ..	150	..	..	..	1	..	..	1	1	..	..	..	..	..	10
Tillington ..	890	2	..	3	1	2	..	..	..	..	..	1	..	..	5
Lodsworth ..	700	..	1	..	1	..	..	..	..	..	..	..	..	..	12
Selham ..	50	..	..	..	8	..	..	3	..	..	..	..	..	..	3
Heyshott ..	460	..	..	..	..	1	..	..	..	..	..	1	..	..	4
Graffham ..	415	2	..	..	..	1	..	..	..	..	..	..	..	1	11
Cocking ..	600	..	2	..	..	1	..	3	..	1	..	..	..	..	3
Midhurst ..	1645	..	..	..	..	5	..	1	..	1	..	..	..	..	3
Woolbeding ..	365	..	..	..	..	1	..	1	..	2	..	1	..	..	11
Easebourne ..	1020	..	..	..	..	..	..	..	..	..	..	1	..	..	3
South Ambersham ..	125	..	..	..	..	..	..	..	..	1	..	1	..	..	1
North Ambersham ..	170	..	1	..	7	1	..	..	..	1	..	..	..	..	1
Lurgashall ..	730	..	..	..	3	2	..	3	..	1	1	1	..	1	10
Fernhurst ..	1120	..	..	..	3	..	..	..	..	1	..	..	..	..	11
Linchmere ..	350	..	..	..	..	..	..	..	..	1	..	..	..	..	4
Linch ..	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stedham ..	545	..	2	..	..	2	..	..	..	1	..	..	..	..	5
Iping ..	530	..	..	1	..	2	..	..	..	1	..	..	..	..	2
Trotton ..	400	..	1	..	3	..	..	1	..	2	..	1	..	..	10
Chithurst ..	340	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Terwick ..	190	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Regate ..	985	..	1	1	..	2	..	2	1	..	1	..	..	..	8
Harting ..	1275	..	3	8	1	2	..	1	..	..	1	..	..	..	16
Elsted ..	210	..	..	..	..	2	..	..	..	2	..	1	..	..	5
Treyford ..	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Didling ..	85	..	1	..	..	..	..	..	..	..	..	..	..	..	2
Bepton ..	275	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Total ..	14,100	4	12	13	27	24	1	17	2	14	7	7	..	2	130

Midhurst Sub. D.

Fernhurst S. D.

Harting Sub-Dist.

TABLE A.—Showing the Deaths during the year 1882, in the Rural District  
also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	
MIDHURST PARISH.	1620	1645	43	30	8	1	1	1	6	13	Under 5. ..... 5 upwds	
REST OF MIDHURST SUB-DISTRICT ...	4953	5000	145	74	14	9	9	3	15	24	Under 5. ..... 5 upwds	
FERNHURST SUB- DISTRICT. ...	2435	2470	86	41	10	8	1	2	7	13	Under 5. ..... 5 upwds	
HARTING SUB- DISRRICT.	4956	4985	164	87	21	10	10	4	20	22	Under 5. ..... 5 upwds	
MIDHURST WORK- HOUSE ... ..				8	—	—	—	—	5	3	Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
TOTALS .....	13964	14100	438	240	53	28	21	10	53	75	Under 5. ..... 5 upwds	
Deaths occurring outside the district among persons belonging thereto .....											Under 5. ..... 5 upwds	
Deaths occurring within the district among persons not belonging thereto .....											Under 5. ..... 5 upwds	

URST classified according to Diseases, Ages, and Localities, and showing  
e Births therein during the year.

ABILITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER  
FIVE YEARS OF AGE.

Diphtheria	Croup (not "spasmodic")	Whooping Cough.	Cont. Fevers			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis, Pneumonia & Pleurisy	Heart Disease	Injuries	Other Cases
			Typhus	Enteric or Typhoid	Other or Doubtful												
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
														3			6
													3	4	2		12
3		1												2			17
3						1							6	7	8	2	24
		2												8			7
				1				1					4		4	2	11
		3							1					6			15
3									1				5	6	4	5	27
													3		1		4
3		6							1					19			45
6				1		1		1	1				21	17	19	9	78



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of MIDHURST, classified by Age and Sex.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF MIDHURST, CLASSIFIED BY AGE AND SEX.						
	Under 5 1	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Midhurst Parish	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Rest of Midhurst Sub.-Dist.	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... 1 .....	2 ..... 5	..... ..... .....	4 ..... .....
Fernhurst Sub.-Dist.	Under 5 ..... 5 upwds	..... ..... .....	..... ..... .....	..... 2 .....	..... 3 .....	..... ..... .....	10 ..... 5
Harting Sub.-Dist.	Under 5 ..... 5 upwds	..... ..... 1	14 ..... 23	10 ..... 21	..... ..... .....	..... ..... .....	5 ..... 4
	Under 5 ..... 5 upwds	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
	Under 5 ..... 5 upwds.	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....
Totals	Under 5 ..... 5 upwds.	..... ..... 1	14 ..... 23	10 ..... 24	2 ..... 8	..... ..... .....	19 ..... 9

Sources of information :—In Workhouse and Work

Medical Officer of Health, during the year 1882 in the Rural Sanitary District of ... according to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

Diseases.									Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record
Typhoid 0	other or Doubtful 21	Diarrhoea and Dysentery 22	Cholera 23	Rheumatic Fever 24	Erysipelas 25	Pyæmia 26	Puerperal Fever 27	Ague 28	
		1							
		9		1					
		1							
				3					
	3	3							
	6	8		1	2				
	3	5							
	6	17		5	2				

firmary, 24. Among Out-door Paupers, 549.





## RURAL SANITARY DISTRICT OF WESTBOURNE.

POPULATION, 7221 IN 1871; 7413 IN 1881. AREA IN  
ACRES, 32,886. NO. OF HOUSES, 1534.

DURING the year 1882 the births of 213 children and the deaths of 118 persons were registered; of the births 114 were male and 99 were female, of the deaths 58 were male and 60 were female.

There were eleven deaths in Westbourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., West Dean 1, Up Marden 1, Funtington 2, Bosham 1, Westbourne 6; in all 11.

In each parish the deaths were thus distributed:—West Dean 8, East Marden 2, North Marden 0, Up Marden 5, Stoughton 8, Compton 5, Racton 1, Funtington 21, Bosham 23, Chidham 5, West Thorney 0, Westbourne 40; in all 118.

The births and deaths in the whole of the district during the past three years have been as follows:—

Year.		Births.	Birth-rate.	Deaths.	Death-rate.
1880	...	231	31·3	120	16·2
1881	...	212	28·5	91	12·2
1882	...	213	28·6	118	15·8
Mean		218	29·4	109	14·7

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter	35	32	67	7	12	19
2nd „	25	17	42	14	17	31
3rd „	30	24	54	15	8	23
4th „	24	26	50	22	23	45
Total ..	114	99	213	58	60	118

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter	5	3	—	1	2	8	19
2nd „	7	2	1	1	7	13	31
3rd „	5	—	3	1	5	9	23
4th „	7	7	4	1	10	16	45
	—	—	—	—	—	—	—
Total ..	24	12	8	4	24	46	118

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year : —

	Births.	Dths. under 1 year	Ratio to 1,000 Births.	Mean of 2 years.
Funtington Parish	35	4	114	112
Bosham „	44	2	45	62
Westbourne „	69	12	173	114
Rest of District.....	65	6	92	66
	—	—	—	—
Whole of District	213	24	112	86

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135, 153 and 130 in the seven preceding years.

The twenty-four infantile deaths in 1882 included one from measles, four from whooping-cough, one from pyæmia, three from convulsions, five from lung diseases, one from enteritis, four from debility, three from premature birth, one from teething, and one from natural causes.

The deaths from *zymotic*, or catching disorders, were 18 in number, against 4 and 5 in the two preceding years.

These eighteen deaths included one from measles, one from scarlatina, eight from diphtheria, four from whooping-cough, one from enteric fever, one from diarrhœa, one from erysipelas, and one from pyæmia.

The rate of mortality from these diseases during the past year was 2·4 per 1000 persons living, against a rate of 0·6 and 0·5 in the two preceding years.

Throughout England and Wales the annual death-rate from the seven principal *zymotic* diseases alone was 2·64 per 1000, against a rate of 2·44, 3·30, and 2·24 in the three preceding years.

*Scarlet fever* caused one death in a private house, but there was no further spread of the disorder.

Nine children in all died last year from diphtheria, but in one of these cases the cause of death was entered as "bronchitis, sore throat and croup." Of these nine cases, 2 died at Stoughton, 2 at Compton, and 5 at Funtington.

The disease first appeared in a lonely spot at Sennicott's, Funtington, on the south aspect of the Downs, in the month of August. There were here three cottages about a quarter of a mile distant from each other, and very isolated; the houses were dry and well built, and the weather at the time was fine and warm.

The following were the inmates of these three cottages:—

1. Henry A., a gamekeeper, wife and four children.

Arthur A., 10 years, was taken ill on August 5th and died on August 13th.

Elizabeth A., 6 years, taken ill on August 7th and died on August 16th.

Edith A., 2 years, taken ill at the same time, died on October 7th of general debility after diphtheria.

Eliza A., 14 years, ill early in August, finally recovered.

In this house the parents escaped; all the children were attacked and the three youngest died.

2. William A., a gardener, wife and four children.

Herbert A., 5 years, was attacked on August 1st and died on August 7th of syncope, from "exhaustion after acute tonsillitis."

Three other children also had milder attacks and recovered. The parents were in good health.

3. Thomas G., a coachman, wife and six children.

Wilfred G., 2 years, died on October 26th, of diphtheria.

Two other children had sore throats.

The father escaped, but the wife and three other children were poorly.

In each case the water supply was different and of good quality, and there were no sanitary defects.

The disease appeared to have been caught from a family living near, but in a different union.

Each house was disinfected with burning sulphur, and then cleansed and limewashed. The children were kept from school for many weeks and no spread occurred.

Early in December a small outbreak of *diphtheria* occurred in a cottage at Stoughton occupied by a man named James P., with his wife and five children.

William P., 12 years, fell ill on December 1st and died on December 8th.

Ellen P., 10 years, ill on December 4th, recovered.

Phoebe P., 3 years, ill on December 4th, recovered.

Frederick, 5 years, ill on December 5th, recovered.

Mary, 1½ year, ill on December 5th, died on December 12th.



Mrs. P., ill on December 8th, recovered.

James P., ill on December 19th, recovered.

A family of three adults and two young children living next door were not attacked, although they were in close communication, drank the same water, and this adjoining cottage had the same entrance as in the above case. The water was from a well in the chalk, and it was of very good quality. The weather at the time of the outbreak was very cold, bleak and wet, and many other children in the village suffered from colds and sore throats. There were, however, no cases of diphtheria.

Close to P's. cottage there was a farm yard, and in this yard there was an open shed in which there was deposited a heap of excreta mixed with earth and ashes. There was nothing whatever offensive about this heap at the time of my visit, but complaint had been made when it was first deposited there. The farmer has now discontinued the practice, and there has been no spread of the disorder. The cottage was well disinfected and the children kept from school. The school in fact was closed for two or three weeks in consequence of the prevalence of sore throats.

In the third outbreak the disease was limited to a school house at Compton, occupied by Mr. R., wife and four children.

Alfred R., 5 years, was taken ill towards the end of November and died on December 2nd, of "bronchitis, sore throat and croup."

Mabel R., 3 years, taken ill on November 24th, died on December 8th of diphtheria.

Two other younger children and the parents escaped the disease.

The school closets were in a bad condition, and now they have been removed, the cesspits filled up and new ones have been erected on the earth principle, and they are better ventilated. There was also a foul cesspit which received the dirty water from the sink in the scullery. This cesspit emitted at times foul gases; it has now been removed further from the house, and the drain to it has been properly trapped; the sink is cut off from any direct connection with the drain, and no sewer gas can now enter the house. The school was closed for a time, and the house and class rooms were well fumigated and cleansed. There was no further spread of the disease.

Of the three outbreaks the first seemed due to direct infection, while the other two seemed due to bad sanitary conditions, occurring at a time when from the inclemency of the weather ordinary sore throats and colds were very prevalent.

The three outbreaks were very limited in area, and had no connection with each other, being several miles apart. In all

only five houses were attacked, containing 33 inmates, viz., 10 adults and 23 children; 3 adults and 21 children fell ill. The mortality among those attacked was very great, nor did this seem due to the poverty of the parents nor to any dirty condition of the houses. Most of the houses were kept very clean, and the cottages were in a much better condition than is commonly met with.

In the first outbreak the disease had spread to the three houses before its nature was recognised; in the other cases isolation seemed to limit the disorder in each case to a single house.

*Enteric fever* caused the death of a girl at Chidham, but this was an imported case, the patient having caught the disease while in service elsewhere; there was here no further spread of the disease.

At Hermitage, in the parish of Westbourne, there were some cases of enteric fever at the end of October in a family consisting of Thomas D., wife and six children; five of the children were attacked one after the other, but they all recovered; the baby and the parents escaped. At the back of this cottage there was a very small yard with an offensive closet and ashpit; the necessary alterations were carried out and the place put in fair sanitary condition. There were two other cottages using the same yard, but their inmates were not attacked. In this instance the fever seemed to arise from the foul state of the premises; there were no other cases of fever in the village at the time, and there was no history of any previous infection.

Inquests were held in four cases: female,  $1\frac{1}{2}$  years, exhaustion from scald; female, 7 weeks, natural causes; male, 20 years, accidentally drowned while bathing; female, 58 years, natural causes, angina pectoris.

There were five deaths in the district returned as "not certified" out of a total of 118 deaths:—female, 9 months, probably dentition; female, 72 years, probably heart disease; female, 20 hours, premature birth; female, 52 years, probably apoplexy; male, 78 years, unknown.

There were two deaths of children born out of wedlock out of a total of 213 births:—female, 16 months, *tabes mesenterica*, certified; male, 33 days, congenital syphilis, convulsions, certified.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There was no case during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

The bakehouses and slaughterhouses have been inspected at intervals, and they have been kept in a cleanly state.

There is no common lodging-house in the district.

Proceedings in a case of overcrowding were taken before the magistrates on Nov. 11th. A man lived with a woman and had six children by her ; they dwelt in a filthy cottage without sufficient accommodation. The Bench ordered the overcrowding to be abated within seven days, and the woman and children were removed to the Workhouse.

Table I. shows the deaths at various groups of ages during the past two years, and the proportion they bear to 1,000 deaths.

Table II. shows the prevalence of zymotic diseases in each of the past two years.

Table III. shows the deaths from zymotic diseases in each parish during the past two years.

Table IV. shows the deaths and death-rate from all causes and from various causes in different localities during the past two years.

Table A. shows the mortality in 1882, classified according to diseases, ages, and localities.

Table B. shows the new cases of sickness among the pauper population during the past year.



## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 2 years 1881-82.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1881 ... ..	91	13	5	3	2	19	49
1882 ... ..	118	24	12	8	4	24	46
Total ... ..	209	37	17	11	6	43	95
In 1000 Deaths...	1000	177	81	52	29	206	455

TABLE 2,—Showing the Deaths and Death-rate in each of the 2 years 1881-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1881	...	...	1	...	...	...	...	...	...	...	2	...	1	4	0·5
1882	1	1	8	4	...	...	1	...	1	...	1	1	...	18	2·4
Tl.	—	1	1	9	4	—	1	—	1	—	3	1	1	22	1·4

## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 2 years, 1881-82.

PARISH.	Population in 1882	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping- Cough.	Continued Fevers.			Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pæmia.	Puerperal Fever.	TOTAL.
West Dean ..	680	..	..	..	..	1	..	..	..	..	..	2	..	..	3
East Marden ..	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
North Marden ..	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Up Marden ..	365	..	..	..	2	..	..	..	..	..	..	..	..	..	2
Stoughton ..	610	..	..	..	1	..	..	..	..	..	..	..	..	..	2
Compton ..	280	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Racton ..	97	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Funtington ..	1120	..	..	..	6	1	..	..	..	..	..	1	..	..	1
Bosham...	1250	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Chidham ..	310	..	..	1	..	..	..	1	..	..	..	..	..	..	2
West Thorney ..	180	..	..	..	..	..	..	..	..	..	..	..	1	..	4
Westbourne ..	2460	..	1	..	..	1	..	..	..	..	..	..	..	1	4
Total .....	7450	—	1	1	9	4	—	1	—	1	—	3	1	1	22

## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE .4—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 2 years 1881-82,

LOCALITY.	Deaths during the 2 years 1881-82, from							Annual Death-rate per 100,000 living from			
	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Population in middle of period.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Funtington Parish .....	30	8	—	5	1	1345	1115	356	—	224	44
Bosham "	44	1	4	4	8	1762	1248	40	160	160	320
Westbourne "	70	4	9	13	9	1426	2453	81	183	265	183
Rest of District .....	65	9	5	11	6	1241	2618	171	95	210	114
Whole District .....	209	22	18	33	24	1405	7434	148	121	221	161
In 1881 .....	91	4	7	15	11	1226	7418	54	94	202	148
In 1882 .....	118	18	11	18	13	1583	7450	241	147	241	174



TABLE A.—Showing the Deaths during the year 1882, in the Rural District  
also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
Funtington Parish	1108	1120	35	19	4	4	3	—	3	5	Under 5. ..... 5 upwds
Bosham Parish	1245	1250	44	22	2	2	—	1	5	12	Under 5. ..... 5 upwds
Westbourne Parish	2443	2460	69	35	11	3	2	2	6	11	Under 5. ..... 5 upwds
Rest of District	2617	2620	65	31	6	3	3	1	9	9	Under 5. ..... 5 upwds
Westbourne Work- house				11	1	—	—	—	1	9	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	7413	7450	213	118	24	12	8	4	24	46	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....											Under 5. ..... 5 upwds
Deaths occurring within the district among persons not belonging thereto .....											Under 5. ..... 5 upwds



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of WESTBOURNE, classified by Localities.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF WESTBOURNE, CLASSIFIED BY LOCALITIES.						
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough
	12	13	14	15	16	17	18
Funtington Parish	Under 5 ..... 5 upwds.	..	..	....	....	....	....
Bosham Parish	Under 5 ..... 5 upwds.		1 ..... 1				3 ..... 2
Westbourne Parish	Under 5 ..... 5 upwds.		5 ..... 7				2 ..... 3
Rest of District	Under 5 ..... 5 upwds.				4 ..... 11		4 ..... 3
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
Totals .....	Under 5 ..... 5 upwds.		6 ..... 10		4 ..... 11		9 ..... 8

Sources of information :—In Workhouse and Workhouse



Medical Officer of Health, during the year 1882 in the Rural Sanitary  
 ng to Localities and Diseases.

E DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS  
 E.

Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record
21	22	23	24	25	26	27	28	
.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	1	1	.....	.....	.....	
.....	2	.....	.....	2	.....	.....	.....	
.....	2	.....	.....	2	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	.....	
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nary, 30. Among Out-door Paupers, 310.



## URBAN SANITARY DISTRICT OF WORTHING.

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POPULATION 7413 IN 1871 ; 10,976 IN 1881.

AREA IN ACRES, 784. NO. OF HOUSES IN 1871, 1331 ;  
IN 1881, 1984.

DURING the year 1882 the births of 355 children and the deaths of 160 persons were registered ; of the births 191 were male and 164 were female ; of the deaths 78 were male and 82 were female. There were five deaths in the East Preston Workhouse of persons belonging to this district, and these are included in the 160 deaths.

There were eighteen deaths among visitors during the past year, and of these nine were male and nine were female.

During the past eight years 126 visitors have died in this district ; of this number 13 died from zymotic diseases, 20 from consumption, 18 from lung diseases, 11 from heart disease and 64 from other causes.

Estimating the population in the middle of the year at 11,550, the birth-rate was 30·7 and the death-rate was 13·8 per 1000 persons living ; excluding visitors the death-rate was 12·3 per 1000.

Throughout England and Wales the birth-rate during the past year was 33·7, and the death-rate was equal to 19·6 per 1000 ; in small towns and country parishes the rate of mortality was 17·3 per 1000, while in the chief towns the rate was equal to 21·2 per 1000 persons living.

The births and deaths for the past eight years are here shown :

Year.			Deaths.		Death-rate.	
			includg.	excludg.	includg.	excludg.
	Births.	Birth-rate.	visitors.	visitors.	visitors.	visitors.
1875	- 240	27·2	164	143	18·6	16·2
1876	- 258	28·5	178	163	19·6	18·0
1877	- 250	26·7	160	146	17·1	15·6
1878	- 265	27·1	168	150	17·2	15·3
1879	- 287	28·1	153	146	15·0	14·3
1880	- 286	26·8	168	155	15·7	14·5
1881	- 324	29·2	170	150	15·3	13·5
1882	- 355	30·7	160	142	13·8	12·3



In each quarter the births and deaths were as follows :—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter	56	49	105	27	23	50
2nd „	46	32	78	18	18	36
3rd „	43	46	89	15	18	33
4th „	46	37	83	18	23	41
Total ..	191	164	355	78	82	160

The births in each quarter of the past four years are here contrasted, and it shows that the number of births in each quarter are not far from equal.

	1879	1880	1881	1882	Total	Mean
1st Quarter	63	62	79	105	309	77
2nd „	85	74	86	78	323	81
3rd „	75	66	71	89	301	75
4th „	64	84	88	83	319	80
	287	286	324	355	1252	313

The deaths at different groups of ages in each quarter were as follows :—

	Under one year.	1--5.	5--15.	15--25.	25--60.	60 and Upwds.	Total.
1st Quarter	8	7	1	2	15	17	50
2nd „	4	2	2	—	11	17	36
3rd „	11	1	—	3	9	9	33
4th „	11	4	—	2	6	18	41
Total ..	34	14	3	7	41	61	160

On examining Table I. it will be found that less than one-fifth of the deaths are under one year of age, while considerably more than one-third die aged sixty years of age and upwards.

Taking the average of the past eight years, it would appear that the deaths are most numerous in the first and last quarters of the year.

	1875-78	1879	1880	1881	1882	Total	Mean
1st Quarter	190	40	39	46	50	365	46
2nd „	144	37	43	53	36	313	39
3rd „	156	33	46	40	33	308	38
4th „	180	43	40	31	41	335	42
Total ...	670	153	168	170	160	1321	165

During the same period there were 2265 births, so that the natural increase of population by excess of births over deaths

was 944. The estimated increase is 2,750, so that there has been a considerable migration into Worthing from other districts.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year : —

Year.	Births.	Dths. under I year	Ratio to 1,000 Births.
1875	240	33	138
1876	258	30	116
1877	250	33	126
1878	265	31	117
1879	287	21	73
1880	286	39	136
1881	324	28	86
1882	355	34	95
Mean... ..	283	31	110

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years. The 34 infantile deaths included one from scarlatina, three from whooping-cough, six from diarrhœa, one from chicken-pox, two from convulsions, one from disease of the brain, five from lung diseases, nine from debility, four from premature birth, one from teething, and one from accidental suffocation.

The deaths from *zymotic*, or catching, disorders were 18 in number, against 16, 29, 19, 21, 9, 29, and 10 in the seven preceding years.

The eighteen deaths included 1 from scarlatina, 1 from diphtheria, 7 from whooping-cough, 1 from enteric fever, 7 from diarrhœa, and 1 from puerperal fever.

The rate of mortality from these diseases during the past year was 1·5 per 1000 persons living, against a rate of 1·8, 3·2, 2·0, 2·1, 0·8, 2·7, and 0·9 in the seven preceding years. In the past eight years there have been altogether 151 deaths in this class, or a mean annual rate of 1·9 per 1000.

*Small-pox* was imported into the district on three occasions, and in each case the disease seemed to be caught at Hove, where the disorder was very prevalent at the time.

Case 1. Frederick S., 23 years of age, came back from Hove on Nov. 24, 1881, having been poorly two or three days previously; the rash appeared in the evening of Nov. 24th, and after a severe attack the man recovered; he had been successfully vaccinated when a child. There were at the time five other adults and two young children living in the house; the patient was placed in an adjoining empty house, and he was



nursed by his wife, who had with her a baby one year old. The wife was re-vaccinated on Nov. 29th, and the arm rose in three places; all of the above inmates were successfully vaccinated in infancy, and some were now re-vaccinated.

There was no spread of the disorder, and after the man had recovered the house was well fumigated with sulphur on Jan. 3, 1882, and then cleansed and limewashed. Some of the clothing and bedding was burnt, and compensation was made by the Sanitary Authority.

Case 2. George G., aged 67 years, was taken ill on Jan. 1st, 1882, and he had a mild attack; he was nursed by his wife, and he soon recovered. The man often went into Hove on business; he and also his wife and son, 16 years of age, had been vaccinated years ago; none of them were re-vaccinated now; none of the bedding or clothing was destroyed, and the only disinfectant used was burning tobacco. There was here also no spread of the disease.

Case 3. A boy, employed at Hove Station, was taken poorly in January; he returned to his home at Worthing, but he never had any medical advice; this lad probably had a very mild attack of variola, for when he was seen on Jan. 29th there were a few brown coloured spots on his face and body similar to those seen after recovery from small-pox. At this time a woman was lodging in the house, who was confined early in the month, and this baby was covered with an eruption on Jan. 29th, and died two days afterwards. Being only three weeks old, it had never been vaccinated; the death was registered as due to chicken-pox, and indeed the nature of the disorder was at first doubtful, until subsequent events showed it to have been small-pox.

On February 2nd Mrs. D., middle-aged, living in an adjacent street, was taken ill with small-pox, and she had washed for the family where the baby had died; she could hardly have caught the disease from the infant's clothing, as the period of incubation would then be less than a week, but she most likely was infected by the lad who returned from Hove.

In Mrs. D's house there dwelt her husband, a daughter aged 13 years, and two young male lodgers. The young men left at once, but the husband and daughter remained to nurse Mrs. D. These four inmates were re-vaccinated successfully on Feb. 2nd, and there was no spread of the disorder from this case. Mrs. D. had been successfully vaccinated in infancy, and after a severe attack she recovered. Isolation was well carried out, and on Feb. 28th the house was fumigated with sulphur, and some of the bedding, clothing, &c., was burnt, compensation being given by the Sanitary Authority.

A railway guard who lodged in the house where the baby died was taken ill with small-pox on February 11th; he went



home to his parents' house at Southwater, where his disorder was at first thought to be chicken-pox by those who attended him. The further history of this case is given at p. 24 of this report.

There were no more cases of small-pox in Worthing.

**WATER REGULATIONS.**—In the year 1881 much time was spent in drawing up regulations for the water supply of the town, and at first considerable opposition was met with. The dangers of the old system of water supply which have been pointed out in Report VII., p. 45, and the great waste of water which has been going on for years led the Local Board to adopt at the close of 1882 a code of regulations which provides for the prevention of waste, the disconnection of the water supply from all drains and closets, the provision of small flushing cisterns in each house, the delivery of warning-pipes into the open air, and for the drawing of all drinking water from the rising main.

**WATER SUPPLY.**—For some years past the quantity of the water supplied to the town has been deficient at times, and especially in the summer months, when the town is full of visitors, and when the streets require watering.

When Mr. Horne was appointed surveyor to the Local Board in 1880 his attention was at once drawn to the subject, and on Oct. 14, 1880, he sent in the following report to the Local Board :—

“With a view to ascertain what amount of water passes through the mains during the early hours of the morning, I instructed the engineer to test the same, the result of which is as follows :—On Monday, Oct. 11th, between 12 midnight and 2 a.m., 20,000 gallons passed from the tank to the mains, 9,000 gallons between 2 a.m. and 3 a.m., and 7,000 gallons between 3 a.m. and 4 a.m. These tests were made under the ordinary night pressure, viz., 10lbs. About four years ago the quantity of water supplied to the town between 11 p.m. and 5 a.m. was 25,000 gallons. As the water is passing from the tank during the night at the rate of about 10,000 gallons per hour, and as the day supply must be greatly in excess of this, it is very evident that a tremendous waste exists somewhere.”

The Surveyor urged the necessity of having rules drawn up for the guidance of builders, plumbers and consumers, and that steps should be taken to discover where the leakages existed.

On Jan 1st, 1881, Mr. Horne further reported that since the commencement of the frost the water had been drawn from the tank through persons leaving their taps running, and through bursts, to such an extent as to compel him to give orders for the supply to the town to be stopped during the night in order that the tank may be full in the morning. On June 7th, 1881,

Mr. Horne, finding that there was still a vast waste of water, directed Mr. Harris, the engineer, to take careful observations of the exact quantity of water actually drawn from the tank during the space of 24 hours, taking each hour separately.

6 a.m. to 6 p.m.	Gallons per hour.	Pressure.	6 p.m. to 6 a.m.	Gallons per hour.	Pressure.
6 to 7	14,000	15lbs.	6 to 7	18,000	15lbs.
7 to 8	16,000	15lbs.	7 to 8	17,000	15lbs.
8 to 9	18,000	15lbs.	8 to 9	10,000	15lbs.
9 to 10	25,000	20lbs.	9 to 10	16,000	15lbs.
10 to 11	20,000	15lbs.	10 to 11	15,000	15lbs.
11 to 12	19,000	15lbs.	11 to 12	11,000	10lbs.
12 to 1	19,000	15lbs.	12 to 1	16,000	10lbs.
1 to 2	18,000	15lbs.	1 to 2	11,000	10lbs.
2 to 3	20,000	15lbs.	2 to 3	10,000	10lbs.
3 to 4	19,000	15lbs.	3 to 4	9,000	10lbs.
4 to 5	23,000	15lbs.	4 to 5	9,000	10lbs.
5 to 6	17,000	15lbs.	5 to 6	15,000	30lbs.

Total - 228,000 in 12 hours.      Total - 157,000 in 12 hours.  
Day average 19,000 per hour.      Night average 13,083 per hour.  
Total for 24 hours, 385,000 gallons.

The above was taken in six stoppages of the engine of 4 hours duration in one week, thus showing that during the day-time 228,000 gallons of water were discharged into the mains during the 12 hours from 6 a.m. to 6 p.m., at the average rate of 19,000 gallons per hour, and during the 12 hours in the night from 6 p.m. to 6 a.m., 157,000 gallons were discharged at the rate of 13,083 gallons per hour, or at the average rate (night and day) of 16,040 gallons per hour. No water was drawn from the mains for street watering purposes during the time that these tests were being taken, and as it has been previously ascertained that the wells will not yield more than 16,000 gallons per hour, which is almost the exact quantity now used, consequently when I have found it necessary recently to take water from the mains for street watering purposes, the town has been left many times during the last week with no water, in either the wells or tank. As the quantity of water now being used is at the enormous rate of 35 gallons per head per day on the inhabitants of the town (11,000) it is very evident that at least one half of the quantity supplied is wasted. As a proof of this, between 11 p.m. on Friday night last and 1 a.m. on Saturday morning I examined a number of the sewers in the town whilst the water was on at the ordinary pressure of 15 lbs. to the square inch, and found them running at a depth of from two to four inches of clear water. I shut the water off the whole of the town at 1 a.m., allowed the sewers an hour to empty, then re-inspected them between 2 and 4 a.m., and found them, comparatively speaking, dry. As a great quantity of the waste arises from defective water fittings and bad plumbing, I beg to call your attention to the absolute necessity of having Water Works regulations published with as little delay as possible.



May 2nd, 1882.

"I have to report that I gauged the water supplied from the Storage Tank at the Water Works into the mains on the 1st inst., which is as follows:—

Time.	Pressure to the square inch.	Discharged.
1.0 a.m. to 1.30 a.m.	30lbs.	18,500 gallons.
1.30 a.m. to 2.0 a.m.	20lbs.	9,500 gallons.
2.0 a.m. to 2.30 a.m.	15lbs.	6,000 gallons.
2.30 a.m. to 3.0 a.m.	15lbs.	7,000 gallons.
3.0 a.m. to 3.30 a.m.	10lbs.	5,500 gallons.

"I consider that the greater portion of the 18,500 gallons discharged between 1 a.m. and 1.30 a.m. would be taken to fill cisterns in the town, but the greater portion of the 28,000 gallons discharged between 1.30 and 3.30 must be wasted, as little or no water is used at these hours, and is at the rate of over 30 gallons a head per day on the inhabitants of the town.

"I have this day discovered a 3-inch water main broken asunder in Teville road, and the water flowing away into the sewer. How long this has been in existence it is impossible to say. But it would be advisable to have all the water mains tested with as little delay as possible."

May 11th, 1882.

"I beg to report that yesterday morning, the 10th inst., I gauged the quantity of water discharged from the tank into the water mains under a pressure of 30 lbs. to the square inch, which was as follows:—

Time.	No. of Gallons in Tank.				No. of Gallons discharged.			
2. 0 a.m.	..	..	..	76,500	..	..	..	
2.15 a.m.	..	..	..	66,000	..	..	..	10,500
2.30 a.m.	..	..	..	60,000	..	..	..	6,000
2.45 a.m.	..	..	..	55,000	..	..	..	5,000
3. 0 a.m.	..	..	..	50,000	..	..	..	5,000
3.15 a.m.	..	..	..	45,000	..	..	..	5,000
3.30 a.m.	..	..	..	40,000	..	..	..	5,000
3.45 a.m.	..	..	..	35,000	..	..	..	5,000
4. 0 a.m.	..	..	..	30,000	..	..	..	5,000
4.15 a.m.	..	..	..	25,000	..	..	..	5,000
4.30 a.m.	..	..	..	20,000	..	..	..	5,000

"Thus it will be seen that in the first 15 minutes 10,500 gallons were discharged, a great portion of which would be undoubtedly taken to fill the cisterns. The second 15 minutes 6,000 gallons, and each succeeding 15 minutes exactly 5,000 gallons, the greater quantity of which must have been wasted."

August 1st, 1882.

"I beg to report that during the past month the complaints of the insufficiency of the supply of water in the town have been very numerous, and although so large a quantity is pumped into the mains, the ordinary pressure kept on, and every exertion made to have it properly distributed, I have found it impossible to properly supply the town on account of the great waste which exists. The meter for testing the waste is being now fixed in its position in Montague-street, and the testing will be commenced in a few days. I have also to report that a great waste of water takes place through the inhabitants washing their pavements, particularly on Saturdays. It would be very advisable to have this practice stopped until the town is better supplied."



September 5th, 1882.

“During the past month the complaints of the insufficiency of the supply of water in the town have been very numerous. And although so large a quantity is pumped into the mains, the ordinary pressure kept on, and every exertion made to have the water properly distributed, I have found it impossible to furnish a proper supply on account of the great waste which exists. The meter for testing the waste has been fixed in its position in Montague-street, and District No. 1 has been tested with the following results:—

Between the hours of one and five in the morning the water passes into that portion of the Marine Parade which lies between Paragon Street and West Buildings at the rate of 200 gallons per hour. Into Prospect Place at the rate of 80 gallons per hour, or at the average rate of 22 gallons per head per day on the 85 inhabitants in that street. Into New Street, at the rate of 40 gallons per hour, or at the rate of 10 gallons per head per day on the 90 inhabitants. Into that portion of Montague-street between Prospect Place and West Buildings at the rate of 80 gallons per hour, or at the rate of 40 gallons per head of the inhabitants. Into Graham-road at the rate of 120 gallons per hour; and into Gloucester Place and Buckingham-road at the very high rate of 500 gallons per hour. These figures I have laid before your Roads Committee, who instructed me to take active steps to discover the locality of waste in the two last-named streets. Therefore I have had the mains uncovered the whole length, the hydrants and valves examined, and although slight wastes were found, nothing was discovered to in any way account for the very excessive waste which exists, when, comparatively speaking, no water at all ought to pass the meter. I therefore had stop-cocks put into all the services and made a thorough test of each, and found the water passing through nearly every service at a very rapid rate. In each case I have had notice served on both the owners and occupiers to have their several services uncovered within 48 hours, and where necessary thoroughly repaired. As this work proceeds the town will gradually be better supplied with water, but I am of opinion that the supply can never be reduced to the minimum demanded by the Local Government Board until the present existing system of direct supply from the water main to the water closet basins is dispensed with. And whilst the above defects are being remedied it is the most opportune time to have the direct supply done away with. If the Board have not at present power to enforce these alterations, I beg most respectfully to urge that steps be taken with as little delay as possible to obtain such powers, as the matter of water supply is assuming a very serious aspect.”

October 3rd, 1882.

“During the past month the water inspection has progressed but slowly, although a great waste has been detected and stopped. One service alone, in Gloucester Place, was found to be constantly wasting water underground of 300 gallons per hour. The effect of this work has been felt, as we are not only keeping the pressure on the mains all night, but are also able to stop the engine and pumps for several hours daily.”

December 5th, 1882.

“The testing of the water mains, services, and fittings, has been carried on during the past month through the meter fixed in Montague-street, with the following results, compared with the tests taken in September last. These tests were all taken under a pressure of 20 lbs, to the square inch, and between the hours of 12 and 5 in the morning.

## No. 1 DISTRICT.

	Sept. Test. Galls. per Hour.	Dec. Test. Galls. per Hour
Montague Street, from Prospect		
Place to West Buildings .....	80	6
Gloucester Place & Buckingham-road	500	24
Graham-road.....	120	14
New-street.....	40	24
Prospect Place .....	80	23
	<hr/> 820	<hr/> 91

Thus showing a saving of 731 gallons per hour in this small district. 300 gallons per hour of this waste was traced to the service which supplies the houses No. 1, 2, 3, 4, 5, and 6, Gloucester Place, which was in a very leaky condition, and had been extended at some time under the wall adjoining the Graham-road schools, probably for a building service, and when finished with the pipe had been plugged with a piece of wood, which in course of time had rotted away, thus allowing the water to flow from the end of the pipe, full bore, into a neighbouring drain. The remainder of the waste was found to proceed from broken stop-cocks, faulty services, and defective closet fittings, the latter of which has proved a source of great trouble and loss of time during these inspections. As in many cases the handles are shored up during the night, and put down early in the morning, before an inspection of the premises can be made, or are in such bad order as to hang up, and thus pass a large quantity of water. None of the mains in this district have been found leaky. Stop-cocks have been put into every service."

January 2nd, 1883.

"In consequence of the waste of water having been greatly reduced, I have been able to increase the supply. A pressure of 7lbs. to the square inch is now constantly kept on the mains during the night, and from 16 to 30lbs. to the square inch during the day. With this increase I am able to have the engine stopped as long as five hours a day."

"From careful tests which I have recently taken I find that the consumption of water in the town has been reduced to 27 gallons per head per day as against 35 gallons in my last report on this matter."

As a result of Mr. Horne's labours the water supply to the town is much more efficient, and great waste has been avoided. The following table shows what has been done very clearly:—

	End of 1882.	1880.
5 a.m. to 5.30 a.m. ...	18lbs. pressure	15lbs. pressure
5.30 a.m. to 6 a.m. ...	30lbs. ,,	30lbs. ,,
6 a.m. to 12 noon ...	18lbs. ,,	12lbs. ,,
12 noon to 12.30 p.m. ...	30lbs. ,,	30lbs. ,,
12.30 p.m. to 4 p.m. . .	18lbs. ,,	10lbs. ,,
4 p.m. to 4.30 p.m. ...	30lbs. ,,	supply given when there was any water.
4.30 p.m. to 11.30 p.m.	18lbs. ,,	10lbs. pressure
11.30 p.m. to 5 a.m. ...	8lbs. ,,	turned off

In order still further to save the fresh water supply, the Local Board have had under their consideration several schemes for watering the whole of the streets within the district with sea water.



“The quantity required for this purpose is about 22,000 gallons per day. It was first proposed to pump by steam the water from the existing sea water tank on the Marine Parade, into a large tank, to be placed 15 feet from the ground, on land at the rear of the Skating Rink in Bath Place, where the water carts would be filled, and afterwards taken to all parts of the district for distribution. This scheme was abandoned, along with several others of a similar kind, on account of the excessive carting of water which it would involve. A scheme was afterwards got out by the Surveyor, which received the approval of the Board, and which was as follows:—

The sea water to be raised from the present sea water tank, by means of a direct acting steam pump, with boilers &c., to be placed partly underground in an ornamental, diminutive building to be erected on Marine Parade opposite Bath Place, and forced through a six-inch rising main through the centre of the town, by way of South Street, Chapel Road, Union Place, and North Street, into a tank to hold 20,000 gallons, to be placed in the water tower under fresh water tank. Along this main hydrants would be placed at intervals; the water would be drawn into the water carts, and afterwards distributed. This scheme would involve considerably less carting than any previous one, and as the bottom of the storage tank is proposed to be placed thirty feet from the ground, this would give a pressure on the rising main of at least 13lbs to the square inch; and should the mains ever be extended to the highest part of the town, viz., Park Crescent, the pressure point would never be less than 8lbs to the square inch. The water carts could thus be filled in a few minutes, or at least one-fifth the time it now takes to fill them at the present sea pump by manual labour, which would be entirely dispensed with.

This scheme was submitted to the Local Government Board, and met with their approval with the exception that they strongly recommended the Board to raise the water by one of Shone's Patent Ejectors, similar to those which have been so successfully pumping the sewage of Eastbourne, instead of a steam pump.

A deputation of the Board and the Surveyor visited Eastbourne, and their report was so favourable towards the Shone Ejector, that the Board agreed to adopt it, and the matter is now so far advanced that most probably the whole scheme will be carried out and completed by the end of June next. One great advantage in this scheme is that the services of the man which would be required to attend to the steam pump &c., will be entirely dispensed with, as the Shone machinery is entirely automatic and will be supplied from the boilers in use at the Waterworks as follows: an 8inch air compressor will be placed in the present engine house, which will be oiled and otherwise



attended to by the man constantly on duty there. It will be fitted with an automatic steam regulator. This would force the compressed air into a small receiver and thence through a cast-iron pipe, three inches in diameter and laid by the same route as the rising main to the site of the present sea pump on the Marine Parade where one of the ejectors would be placed, immediately below the north end of the inlet pipe to the sea water tank. As the tide rises, the water will flow into the ejector (a cylinder 4ft in diameter) by gravitation, and when full, an automatic arrangement will come into play, admitting the compressed air which immediately closes a ball valve at the inlet and opens a similar valve at the outlet, connecting the ejector to the rising main; and the pressure of the compressed air being greater than the back pressure of the water from the storage tank, the former naturally takes precedence and drives the water up the main into the tank; the ejector and all connected with it will be all underground, and as previously stated, entirely automatic. The estimated cost of this scheme is £1,400."

**DRAINAGE AND SEWAGE.**—In the Seventh Annual Report, p. 44 and 45, it was stated that new regulations had been adopted by the Local Board with regard to the ventilation and construction of house drains. These regulations have since then been carefully carried out, and in all the new houses built since 1880 the sanitary arrangements show a marked improvement. Many old houses have also been altered in accordance with more modern views of drainage.

In 1874 very few houses had any ventilated drains, and the pipes from the houses were all in connection with the sewer. The following statement shows briefly what has been done in this respect during the last eight years:—

There are now 50 street ventilators; there are 5 six-inch ventilators put up since 1880; a nine-inch and a six-inch shaft open from the main sewer into the waterworks chimney, while along the main sewer in the brooks there are three 15-inch air inlets and seven ventilators, all of which work has been done since 1880.

There are now 560 ventilators to houses, of which 311 have been put up since 1880. In this way the main system of sewerage is far more efficiently ventilated than at any previous period, and the sewers are more effectually flushed.

In all new houses and also in many old ones small cisterns are put up in each closet, so that the waste of water is prevented, the house drain is better flushed, and the water supply is cut off from direct connection with a drain.

In carrying out these improvements the greatest assistance has been rendered by the Town Surveyor, Mr. Horne, to whose energy and practical knowledge the result is chiefly due.

**ASHPITS AND DUSTBINS.**—The town is divided into four districts, and the contents of the dustbins are removed once a week.

The process of clearing goes on all day, but the most work is done in the morning. There are about twelve streets where the occupiers of the houses put their ashes, &c., outside in a bucket for removal twice a week, and this is removed before 9 a.m.

The Local Board undertakes the removal of all refuse, and the contents of no dustbins remain more than a week.

The ashyard was removed to a place near Ham Arch in March, 1882; it is an isolated spot, about one-third of an acre in size. The ashes are here sifted and removed for brick-making, the demand being greatest in February and March and least in the autumn months. After the heaps are sifted the rubbish is put into a heap and burned, and then it is taken to fill up holes in brickfields.

**RAINFALL.**—The rainfall during each month of the past year was as follows :—

Month.	Rainfall in inches.	No. of rainy days.	Rainfall in 1881.
January	1·48	9	1·13
February	1·60	12	3·68
March	1·06	11	2·76
April	2·69	19	0·78
May	1·15	12	1·16
June	2·41	21	2·94
July	2·44	17	1·68
August	2·03	15	4·36
September	2·45	11	2·65
October	8·58	21	2·16
November	3·83	21	3·70
December	2·98	22	2·97
<b>Total</b>	<b>32·70</b>	<b>191</b>	<b>29·97</b>

The rain-gauge is 1 ft. above the ground and 24·6 ft. above the sea level; diameter of funnel, 5 inches.

Inquests were held in six cases: female, 10 weeks, accidental suffocation by overlaying; male, 56 years, heart disease; male, 63 years, paralysis of the heart; male, 38 years, poisoning by aconite and belladonna; male, 56 years, accidentally drowned; male, 5 weeks, congestion of the lungs, accelerated by neglect.

There was no death returned as “not certified” out of a total of 160 deaths. There were two deaths of children born out of wedlock out of a total of 355 births: female, 2 weeks, convulsions, certified; male, 7 weeks, diarrhœa, certified.

In the Worthing Infirmary there were 52 in-patients during the year, against 27, 34, 30, 42, 42, 49, and 55 in the seven preceding years.

Of the 52 in-patients 37 belonged to this district, 2 to Steyning, 6 to Thakeham, and 7 to East Preston districts.

There were also 1221 out-patients against 1021, 1073, 1002 1074, 1065, 1080, and 1075 in the seven preceding years.

Among the 1221 out-patients 903 belonged to this district, 4 to Littlehampton, 48 to Steyning, 33 to Thakeham, and 233 to East Preston districts.

A new Infirmary was built in 1881, and it was first occupied in November, 1881. The building was formally opened on January 10th, 1882, by Sir W. Barttelot, Bart., C.B., M.P.

A few cases of overcrowding were remedied during the year.

There is one registered common lodging-house in the district, and this is well kept.

No case arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

The slaughter-houses and bakehouses have been inspected at intervals, and they have been kept in a cleanly state.

No proceedings were taken before the magistrates during the year.

There were 188 new cases of sickness among paupers, against 243, 347, 194, 199, 141, 251, and 214 in the seven preceding years.

The following table shows the changes that have taken place in the death-rate during the past 30 years:—

Per 100,000 persons living.	1843—52.	1853—56.	1857—63.	1875—82.	
	BEFORE	DURING	AFTER	including visitors.	excluding visitors.
	execution of sanitary works.				
General Death-rate	1550	1630	1530	1656	1493
Zymotic Death-rate	292	280	328	190	173
Phthisis Death-rate	305	282	195	172	147
Lung Disease Death rate .....	147	185	185	202	181



WORTHING URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82.

Year.				At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875	...	...	...	164	33	17	3	10	41	60
1876	...	...	...	178	30	25	15	5	47	56
1877	...	...	...	160	33	15	8	6	42	56
1878	...	...	...	168	31	13	2	8	49	65
1879	...	...	...	153	21	13	2	8	39	70
1880	...	...	...	168	39	18	12	9	41	49
1881	...	...	...	170	28	15	8	7	49	63
1882	...	...	...	160	34	14	3	7	41	61
Total ... ..				1321	249	130	53	60	349	480
In 1000 Deaths...				1000	189	99	40	45	264	363

TABLE 2,—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1875		1	::	::	::	1	::	3	10	::	1	::	::	16	1·8
1876		4	16	2	1	::	::	::	5	::	::	::	1	29	3·2
1877		::	2	2	1	::	::	1	9	2	::	::	2	19	2·0
1878		::	::	::	15	::	::	::	5	::	::	1	::	21	2·1
1879		5	·	1	2	::	::	::	·	::	1	::	::	9	0·8
1880		4	1	2	6	::	7	::	9	::	::	::	::	29	2·7
1881		·	4	1	·	::	1	·	2	2	·	·	·	10	0·9
1882		·	1	1	7	·	1	·	7	·	·	·	1	18	1·5
Tl.	—	14½	24	9	32	1	9	4	47	4	2	1	4	151	1·9

# WORTHING URBAN SANITARY DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82.

LOCALITY.	Population in middle of period.	Deaths during the 8 years 1875-82, from				Annual Death-rate per 100,000 living from			
		All Diseases	Zymotic Disease.	Phtthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phtthisis.
In 1875	8800	164	16	19	26	14	1863	181	215
In 1876	9050	178	29	21	15	9	1966	320	232
In 1877	9350	160	19	15	10	24	1711	203	160
In 1878	9750	168	21	19	26	13	1723	215	194
In 1879	10200	153	9	18	21	18	1500	88	176
In 1880	10680	168	29	17	21	13	1573	271	159
In 1881	11100	170	10	11	23	20	1531	90	99
In 1882	11550	160	18	17	21	19	1385	155	147
Total	.....	1321	151	137	163	130	1656	190	172
In 1875	.....	143	11	16	23	12	1625	125	181
In 1876	.....	163	27	16	12	9	1801	298	176
In 1877	.....	146	17	13	10	20	1561	181	139
In 1878	.....	150	20	15	23	13	1538	205	153
In 1879	.....	146	8	18	20	18	1431	78	176
In 1880	.....	155	27	15	20	11	1451	252	140
In 1881	.....	150	10	9	22	20	1351	90	81
In 1882	.....	142	18	15	16	16	1229	155	130
Total	.....	1195	138	117	146	119	1493	173	147

Including visitors.

Excluding visitors.

TABLE A.—Showing the Deaths during the year 1882, in the Urban District of  
ing also the Population of such Localities

Names of Localities adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							Small Pox	
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	13
Worthing Urban Sanitary District.	10976	11550	355	155	34	14	3	7	40	57	Under 5. ..... 5 upwds	.....
											Under 5. ..... 5 upwds	.....
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											Under 5. ..... 5 upwds	.....
TOTALS .....	10976	11550	355	155	34	14	3	7	40	57	Under 5. ..... 5 upwds	.....
Deaths occurring outside the district among persons belonging thereto .....				5					1	4	Under 5. ..... 5 upwds	—
Deaths occurring within the district among persons not belonging thereto .....				18		1	1	1	7	8	Under 5. ..... 5 upwds	



THING, classified according to Diseases, Ages, and Localities, and show-  
the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER  
 FIVE YEARS OF AGE.

[illegible]

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of WORTHING, &c.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF WORTHING, &c.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Worthing Urban Sanitary District.	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	1 ..... 1
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
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	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	.....
Totals .....	Under 5 ..... 5 upwds.	.....	.....	.....	.....	.....	1 ..... 1

Sources of information:—In Workhouse and Workhouse Infirmary  
As Out-Patients

Medical Officer of Health, during the year 1882 in the Urban Sanitary  
ording to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

Typhoid		Other or Doubtful		Diarrhoea and Dysentery		Cholera		Rheumatic Fever		Erysipelas		Pyæmia		Puerperal Fever		Ague		Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record	
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ong Out-door Paupers, 169. As In-Patients of Worthing Infirmary, 37.  
 ething Infirmary, 903.





## URBAN SANITARY DISTRICT OF LITTLEHAMPTON.

POPULATION 3272 IN 1871 ; 3894 IN 1881.

AREA IN ACRES, 925. NO. OF HOUSES IN 1871, 625 ;  
IN 1881, 743.

During the year 1882 the births of 94 children and the deaths of 74 persons were registered ; of the births 46 were male and 48 were female ; of the deaths 41 were male and 33 were female.

These 74 deaths include the deaths of three persons in the East Preston Workhouse, which is outside the district ; they also include the deaths of eight visitors : Male, 50 years, heart disease ; male, 7 months, lung disease ; male, 18 years, accidentally drowned ; male, 3 years, measles ; male, 1 year, measles ; female, 44 years, hernia ; female, 28 years, consumption ; female, 58 years, paralysis.

Estimating the population in the middle of the year at 3980, the birth-rate was equal to 23·6, and the death-rate was equal to 18·5 per 1000 persons living ; excluding visitors, the death-rate was equal to 16·5 per 1000 of population.

Throughout England and Wales the birth-rate during the past year was equal to 33·7, and the death-rate was equal to 19·6 per 1000 ; in small towns and country parishes the rate of mortality was 17·3 per 1000, while in the chief towns the rate was equal to 21·2 per 1000 persons living.

The births and deaths for the past eight years are here shown :—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			includg. visitors.	excludg. visitors.	includg. visitors.	excludg. visitors.
1875	112	32·0	54	50	15·4	14·2
1876	104	29·2	52	49	14·6	13·7
1877	113	31·1	48	46	13·2	12·6
1878	114	30·9	60	58	16·2	15·7
1879	117	31·2	50	50	13·3	13·3
1880	109	28·6	51	45	13·3	11·8
1881	105	26·8	58	55	14·8	14·0
1882	94	23·6	74	66	18·5	16·5
Total ...	868	29·1	447	419	14·9	14·0

In each quarter the births and deaths were as follows :—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter	16	17	33	19	13	32
2nd „	10	9	19	6	4	10
3rd „	16	11	27	11	9	20
4th „	4	11	15	5	7	12
Total ..	46	48	94	41	33	74

The births in each quarter of the past four years are here contrasted, and it shows that they are most numerous in the first quarter of the year.

	1879	1880	1881	1882	Total	Mean
1st Quarter	31	27	28	33	119	30
2nd „	34	32	23	19	108	27
3rd „	28	27	29	27	111	27
4th „	24	23	25	15	87	22
Total ..	117	109	105	94	425	106

The deaths at different groups of ages in each quarter were as follows :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter	10	4	1	1	7	9	32
2nd „	1	1	..	..	4	4	10
3rd „	5	4	1	2	3	5	20
4th „	...	2	...	...	4	6	12
Total ..	16	11	2	3	18	24	74

On examining Table I. it will be seen that less than one-fifth die under one year of age, while nearly one-third die aged sixty years of age and upwards.

Taking the average of the past eight years, it would appear that the deaths are most numerous in the first quarter, and least numerous in the last quarter of the year.

	1875-78	1879	1880	1881	1882	Total	Mean
1st Quarter	71	14	18	16	32	151	19
2nd „	44	13	13	15	10	95	12
3rd „	61	10	8	12	20	111	14
4th „	38	13	12	15	12	90	11
Total ... ..	214	50	51	58	74	447	56



During the same period there were 868 births, so that the natural increase of population by excess of births over deaths was 421. The estimated increase is 480, so that there has been a migration into Littlehampton from other districts.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year : —

Year.	Births.	Dths. under 1 year	Ratio to 1,000 Births.
1875	112	4	36
1876	104	10	96
1877	113	9	79
1878	114	15	131
1879	117	6	51
1880	109	12	110
1881	105	11	104
1882	94	16	170
Total ... ..	868	83	95

Throughout England and Wales there were during the past year 141 deaths of infants under one year of age to every 1000 children born, against a rate of 158, 146, 136, 152, 135, 153, and 130 in the seven preceding years.

The sixteen infantile deaths included two from whooping-cough, five from convulsions, four from lung-disease, one from debility, three from premature birth, and one from teething.

The deaths from *zymotic*, or catching, disorders were six in number, against 6, 8, 3, 5, 2, 3, and 1 in the seven preceding years.

The six deaths included two from measles, two from whooping-cough, and one from enteric fever.

The rate of mortality from these diseases was 1·5 per 1000 persons living, against a rate of 1·7, 2·2, 0·8, 1·3, 0·5, 0·7, and 0·2 in the seven previous years. In the past eight years there have been altogether 34 deaths in this class or a mean annual rate of 1·1 per 1000.

Throughout England and Wales the annual death-rate from the seven principal zymotic diseases alone was 2·64 per 1000 against a rate of 2·44, 3·30, and 2·24 in the three preceding years.

**DRAINAGE AND SEWAGE.**—The main system of sewerage was completed in the course of the year, and all the houses that were connected with the old sewer are now altered, and drain into the new system.

The sewage passes away into the sea, and no nuisance can be noticed at the outfall. The sewers are ventilated in several places at the street level, and at times foul gases escape and cause annoyance; this will be improved when the public supply of water is more abundantly laid on to the houses, whereby the flushing of the drains will be better carried out.

**WATER SUPPLY.**—The works for supplying the town with water were completed in the early part of the year, and there is now a plentiful supply of good and wholesome water. The works have been described in previous reports.

The water is now laid on to a great many houses, and every month considerable progress is made. Regulations have been drawn up by the Local Board with regard to the water supply, and it is important that they should be thoroughly carried out; the rules provide that no water shall be supplied direct to a closet or drain, and they provide for the prevention of waste by the adoption of small flushing cisterns to each house; all warning pipes deliver into the open air, and the drinking supply is drawn direct from the rising main.

There were no cases of overcrowding abated during the year.

There were no cases during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

The slaughter-houses and bakehouses were kept in a cleanly state.

There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

The returns of sickness among paupers show that there were 57 new cases against 71, 56, 53, 80, 75, 76, and 59 in the seven preceding years.

All the deaths during the year were certified.

One inquest was held: Male, 18 years, accidentally drowned whilst bathing.

There was one death of a child born out of wedlock: Female, 17 days, convulsions, certified.

Table I. shows the deaths at various groups of ages during the past eight years.

Table II. shows the deaths and death-rate in each of the past eight years from zymotic diseases.

Table III. shows the deaths and death-rate from all causes and from various causes during the past eight years.

Table A shows the mortality in 1882, classified according to diseases, ages, and localities.

Table B shows the new cases of sickness among the pauper population during the past year.

The *general* death-rate during 1875-82 has been 1495 per 100,000 persons living.

The *zymotic* death-rate during 1875-82 has been 114 per 100,000 persons living.

The *phthisis* death-rate during 1875-82 has been 184 per 100,000 persons living.

The *lung-disease* death-rate during 1875-82 has been 223 per 100,000 persons living.

The *heart-disease* death-rate during 1875-82 has been 112 per 100,000 persons living.

These figures include the deaths of all visitors.



## LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 8 years 1875-82,

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1875 ... ..	54	4	9	1	1	24	15
1876 ... ..	52	10	7	4	6	13	12
1877 ... ..	48	9	2	1	2	16	18
1878 ... ..	60	15	5	7	1	14	18
1879 ... ..	50	6	3	4	3	12	22
1880 ... ..	51	12	7	3	2	13	14
1881 ... ..	58	11	4	—	3	16	24
1882 ... ..	74	16	11	2	3	18	24
Total ... ..	447	83	48	22	21	126	147
In 1000 Deaths...	1000	186	107	49	47	282	329

TABLE 2,—Showing the Deaths and Death-rate in each of the 8 years 1875-82, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus	Enteric or Typhoid.	Other.							
1875		::	1	3	::	::	::	1	1	::	::	::	::	6	1.7
1876		::	3	::	1	::	::	::	3	::	1	::	::	8	2.2
1877		::	1	1	::	::	::	::	::	1	::	::	::	3	0.8
1878		::	3	::	::	::	::	::	1	::	::	::	1	5	1.3
1879		::	::	2	::	::	::	::	::	::	::	::	::	2	0.5
1880	2	2	::	::	::	::	::	::	1	::	::	::	::	3	0.7
1881	1	1	::	::	::	::	::	::	::	::	::	::	::	1	0.2
1882	2	2	::	::	3	::	1	::	::	::	::	::	::	6	1.5
Tl.	—	5	8	6	4	—	1	1	6	1	1	—	1	34	1.1

## LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 8 years 1875-82.

LOCALITY.	Population in middle of period.	Deaths during the 8 years 1875-82, from						Annual Death-rate per 100,000 living from			
		All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
In 1875	3500	54	6	7	11	4	1542	171	200	314	114
In 1876	3560	52	8	6	8	2	1460	224	168	224	56
In 1877	3625	48	3	8	10	4	1324	82	220	275	110
In 1878	3688	60	5	8	5	3	1626	135	219	135	81
In 1879	3760	50	2	6	5	5	1333	53	159	130	130
In 1880	3830	51	3	8	6	4	1335	78	209	156	105
In 1881	3910	58	1	7	6	8	1483	25	178	152	204
In 1882	3980	74	6	5	16	4	1859	150	125	400	100
Total .....	.....	447	34	55	67	34	1495	114	184	223	112
In 1875	.....	50	6	4	11	4	1428	171	114	314	114
In 1876	.....	49	7	5	7	2	1376	196	140	196	56
In 1877	.....	46	3	8	10	3	1268	82	220	275	82
In 1878	.....	58	5	8	5	3	1572	135	219	135	81
In 1879	.....	50	2	6	5	5	1333	53	159	130	130
In 1880	.....	45	3	5	6	4	1180	78	130	156	105
In 1881	.....	55	1	7	6	8	1406	25	178	152	204
In 1882	.....	66	4	4	15	3	1658	100	100	375	75
Total ..	.....	419	31	47	65	32	1402	105	157	216	106

TABLE A.—Showing the Deaths during the year 1882, in the Urban Districts, showing also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2		4	5	6	7	8	9	10	11	12
Littlehampton Urban Sanitary District.	3894	3980	94	71	15	11	2	3	18	22	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	3894	3980	94	71	15	11	2	3	18	22	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....				3	1	—	—	—	—	2	Under 5. ..... 5 upwds
Deaths occurring within the district among persons not belonging thereto .....				8	1	2	—	1	4	—	Under 5. ..... 5 upwds





TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
District of LITTLEHAMPTON, classified by Age and Sex.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF LITTLEHAMPTON, CLASSIFIED BY AGE AND SEX.						
		Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough
	12	13	14	15	16	17	18
Littlehampton Urban Sanitary District.	Under 5						3
	5 upwds.		1				
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals	Under 5						3
	5 upwds.		1				

Sources of information:— In Workhouse and Workhouse Infirmary  
As Out-Patient

Medical Officer of Health, during the year 1882 in the Urban Sanitary  
ding to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.

[illegible]

ing Out-door Paupers, 50. As In-Patients of Worthing Infirmary, 0.  
Worthing Infirmary, 4.



## URBAN SANITARY DISTRICT OF WEST WORTHING.

POPULATION IN 1871, 276; IN 1881, 688, AREA IN ACRES,  
300. NO. OF HOUSES IN 1871, 40; IN 1881, 95.

During the year 1882 the births of 12 children and the deaths of 10 persons were registered; of the births 7 were male and 5 were female; of the deaths 6 were male and 4 were female. Estimating the population in the middle of the year at 760, the birth-rate was equal to 15·8 per 1000, and the death-rate was equal to 13·1 per 1000 persons living.

The ten deaths included two from measles, one from convulsions, one from infantile debility, one from enteritis, one from pleurisy, one from heart disease, one from liver disease, one from kidney disease and one from age.

The total number of deaths in the past eight years at different groups of ages is here shewn:—

Under 1 year.	1—5	5—15	15—25	25—60	60 and upwards	Total.
9	2	2	3	9	16	41

The nine infantile deaths occurred in a space of eight years and included four deaths from premature birth, one whooping cough, one from convulsions, and three from debility.

The births and deaths during the last eight years have been as follows:—

Year.	Births.		Birth-rate.		Deaths.		Death-rate.	
1875 .....	9	...	22·5	...	6	...	15·0	
1876 .....	2	...	4·4	...	4	...	8·8	
1877 .....	6	...	12·0	...	3	...	6·0	
1878 .....	8	...	14·5	...	1	...	1·8	
1879 .....	11	...	18·3	..	7	...	11·6	
1880 .....	13	...	20·0	...	5	...	7·7	
1881 .....	12	...	17·1	...	5	...	7·1	
1882 .....	12	...	15·8	...	10	...	13·1	
	<hr/> 73		<hr/> 15·5		<hr/> 41		<hr/> 8·9	

There was one death from diarrhœa in 1876, one from whooping-cough in 1880 and two from measles in 1882, giving a total of four *zymotic* deaths in the course of eight years. The rate of mortality from this class of disorders, is, on the average, 0.8 per 1000 persons living.

No cases of overcrowding had to be abated.

No cases arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year

Table A is here given, but Table B is omitted as there are no paupers in the district.

The *general* death-rate during 1875-82 has been 899 per 100,000 persons living.

The *zymotic* death-rate during 1875-82 has been 87 per 100,000 persons living.

The *phthisis* death-rate during 1875-82 has been 65 per 100,000 persons living.

The *lung-disease* death-rate during 1875-85 has been 22 per 100,000 persons living.

The *heart-disease* death-rate during 1875-82 has been 131 per 100,000 persons living.

TABLE A.—Showing the Deaths during the year 1882, in the Urban Districts, showing also the Population of such Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
West Worthing Urban Sanitary District.	688	760	12	10	2	—	2	1	—	5	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	688	760	12	10	2	—	2	1	—	5	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....											Under 5. ..... 5 upwds
Deaths occurring within the district among persons not belonging thereto .....											Under 5. ..... 5 upwds





## URBAN SANITARY DISTRICT OF ARUNDEL.

POPULATION IN 1871, 2956; IN 1881, 2748. AREA IN  
ACRES, 2029. NO. OF HOUSES, 552.

DURING the year 1882 the births of 82 children and the deaths of 50 persons were registered; of the births 43 were male and 32 were female; of the deaths 29 were male and 21 were female.

Estimating the population in the middle of the year at 2750, the birth-rate was equal to 30·0, and the death-rate was equal to 18·1 per 1000 persons living.

The above figures include the deaths of four persons in the East Preston Workhouse.

This district was added to the Combined District in November, 1882, and as statistics are only available for such a short period a detailed account of the sanitary condition is deferred for the next annual report.

# GENERAL REPORT

## ON THE

### HEALTH OF THE COMBINED

### SANITARY DISTRICT OF WEST SUSSEX.

#### BIRTHS.

In the whole of the combined Sanitary District the births of 2973 children were registered, and of these 1592 were male and 1381 were female.

The following table shows the births and birth-rate during the past seven years :—

Year	Population			Births.		Total		Rate per 1000	
				Male	Female				
1876	....	81703	....	1253	.... 1187	....	2440	....	29·8
1877	....	82610	...	1309	.... 1240	....	2549	...	30·8
1878	....	83627	....	1328	.... 1253	....	2581	....	30·8
1879	....	84648	....	1379	.... 1255	....	2634	....	31·1
1880	....	86244	....	1277	.... 1337	....	2614	....	30·3
1881	....	94860	....	1463	.... 1405	....	2868	....	30·2
1882	....	96220	....	1592	.... 1381	....	2973	....	30·9
Total.....				9601	9058		18659		30·5

Although the birth-rate in each district shows considerable variations according to the age-distribution of the population, yet when the births in the whole of the district are taken together the rate varies very slightly from year to year. In six out of the seven years more males were born than females, and the above table shows that 543 more boys than girls were born during the last seven years. The proportion between the two sexes is therefore nearly 106 male births to every 100 female births; this is a higher proportion than that met with throughout England and Wales, where it was respectively 103·6, 103·6, and 103·9 in the years 1879-81.



The birth-rate throughout the country was at its maximum (36·3 per 1000) in 1876, and since that period it has gradually declined, so that last year it had fallen to 33·7 per 1000, being the lowest rate recorded since 1858.

In this combined district there has been no such marked change' probably because the depression in trade has not been so much felt among the agricultural population here as in other districts. The birth-rate is of course greatly affected by the marriage rate.

Marriages were most frequent in the years 1872 and 1873, when the country was passing through a period of inflated prosperity; the marriage-rate at that time was 17·6, and then it fell gradually to 14·4 in 1879, since which time there has been a gradual rise. The decrease in the rate affected the mining counties most; thus in Monmouthshire the decrease from 1873 to 1879 was as great as 38·0 per cent., while in Sussex it was only 1·4 per cent. Since the marriage-rate in Sussex is so nearly stationary, it follows that the birth-rate is not affected so much as in other counties.

In each quarter of the past year the births were thus distributed:—

	Male		Female		Total		Per cent
1st Quarter.....	449	....	392	....	841	....	28·3
2nd „ .....	382	....	321	....	703	....	23·6
3rd „ .....	397	....	331	....	728	....	24·5
4th „ .....	364	....	337	....	701	....	23·6
Total .....	1592		1381		2973		100·0

It will be noticed that the births are most numerous in the first quarter of the year, and this is in accordance with the general birth-rate throughout the country. The excess of male over female births was very marked during last year.

Births in each quarter, 1876-82.

	Male		Female		Total		Per cent
1st Quarter	2434	....	2410	....	4844	....	26·0
2nd „	2429	....	2249	....	4678	....	25·1
3rd „	2377	....	2221	....	4598	....	24·6
4th „	2361	....	2178	....	4539	....	24·3
	9601		9058		18659		100·0

The birth-rate per 1000 persons living in each district on the average of the past seven years is here contrasted :—

Steyning.....	32·7	Midhurst.....	30·4
Horsham.....	31·8	Westbourne (3 years) .....	29·5
Petworth.....	29·1	Worthing .....	28·1
Thakeham .....	31·5	Littlehampton.....	28·8
East Preston.....	30·5	West Worthing .....	14·6

It has been shown in previous reports that the birth-rate in any district varies very much with the distribution of the population according to age and sex. In small country places where the population is either stationary or decreasing the rate is low because there are fewer women living there at the child-bearing ages; in large towns or in growing places the rate is generally high because young people flock there for a living and the proportion of women living at the child-bearing age is greater. In towns like Worthing and Littlehampton the rate is low, although these places are increasing in size. This is due to the fact that being seaside resorts there are a number of schools and also a large number of single females employed in service, so that although there is an excess in the female population in these towns as compared with agricultural districts, there is no excess in the number of married women living at the child-bearing age.

In the past seven years there have been 18659 births and 9195 deaths, so that the natural increase in the population by the excess of births over deaths is 9464. The births have been more than twice as numerous as the deaths. The population of the combined district in 1876, including Westbourne, was 89,020; and the population estimated to the middle of last year is 96,220, or an increase of only 7200, so that 2264 persons must have left the district during the last seven years. There is no method of finding out the ages of those leaving, but there can be no doubt that the exodus occurs chiefly among those from 15 to 45 years of age.

This fact may be shown by taking the numbers living in different localities, such as (1) Manchester and Salford, (2)

England and Wales, and (3) the rural districts of Petworth, Thakeham, and Midhurst.

Locality.	All ages.	Males.				25 to 45.	45 & over.
		Under 15.	15 to 25.	25 to 45.	45 & over.		
1 . . . .	10000	.... 3617	.... 1948	.... 2843	.... 1592		
2 . . . .	10000	.... 3694	.... 1850	.... 2572	.... 1884		
3 . . . .	10000	.... 3600	.... 1802	.... 2297	.... 2301		
1	....	10000	....	Females.			
				Under 15.	15 to 25.	25 to 45.	45 & over.
1 . . . .	10000	.... 3299	.... 2016	.... 2979	.... 1706		
2 . . . .	10000	.... 3489	.... 1865	.... 2675	.... 1971		
3 . . . .	10000	.... 3797	.... 1534	.... 2391	.... 2278		

### DEATHS.

In the whole of the combined Sanitary District the deaths of 1376 persons were registered, and of these 705 were male and 671 were female.

The death-rate in each district during the past year is here contrasted :—

District.	Population in middle of 1882.	Births.	Birth-rate.	Deaths.	Death-rate
Steyning . . . . .	16700	.. 582	.. 34·8	.. 251	.. 15·0
Horsham . . . . .	15670	.. 487	.. 31·0	.. 198	.. 12·6
Petworth . . . . .	9500	.. 275	.. 28·9	.. 125	.. 13·1
Thakeham . . . . .	8280	.. 251	.. 30·3	.. 103	.. 12·4
East Preston . . . . .	8230	.. 266	.. 32·3	.. 97	.. 11·7
Midhurst . . . . .	14100	.. 438	.. 31·0	.. 240	.. 17·0
Westbourne . . . . .	7450	.. 213	.. 28·6	.. 118	.. 15·8
Worthing . . . . .	11550	.. 355	.. 30·7	{ 160	.. 13·8
Littlehampton . . . . .	3980	.. 94	.. 23·6	{ 142	.. 12·3*
West Worthing . . . . .	760	.. 12	.. 15·8	{ 74	.. 18·5
				{ 66*	.. 16·5*
				.. 10	.. 13·1
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	96220	2973	30·9	{ 1376	.. 14·3
				{ 1350*	.. 14·0

\* Excluding visitors.

There were 1374 deaths actually registered within the whole district, but to this number should be added the deaths of 22 persons occurring outside the district among persons belonging thereto; from this total of 1396 should be deducted the deaths of 46 persons occurring within the district among persons not belonging thereto, leaving the total number as above at 1350. Of these 46 persons 26 were visitors at Worthing and Littlehampton, and 20 were persons who died in workhouses and who came from places not included in the combination.



The 26 deaths among visitors are added to the total number, so that this general report deals with 1376 deaths.

The general death-rate of 14·3 in 1882 was 0·4 higher than in 1881, but with this exception it was lower than in any previous year.

The death-rate in England and Wales during 1882 was equal to 19·6 per 1000 of population ; it is always much higher in large towns than in country districts.

	Death-rate in 1882.	Mean death-rate, 1872-81.
Chief Towns .....	21·2	22·7
Small Towns & Country Parishes	17·3	18·7

The South-Eastern Division, which includes Kent, Surrey, Sussex, Hampshire, and Berkshire, has always a lower mortality than the other registration divisions.

	Rate in S.E. Division.	Rate in West Sussex.	Rate in England.
1851-60 .....	19·6	—	22·2
1861-70 .....	19·1	—	22·4
1875 .....	18·9	17·0	22·8
1876 .....	17·4	16·5	21·0
1877 .....	16·4	14·6	20·4
1878 .....	17·8	16·1	21·7
1879 .....	17·0	15·2	21·0
1880 .....	17·6	14·9	20·7
1881 .....	16·0	13·9	18·9
1882 .....	—	14·3	19·6

The deaths and death-rate in each of the past seven years are here shown :—

Year.	Population.	Male.	Female.	Total.	Rate per 1000.
1876 .. .. .	81703	725	626	1351	16·5
1877 .. .. .	82610	642	570	1212	14·6
1878 .. .. .	83627	690	664	1354	16·1
1879 .. .. .	84648	695	597	1292	15·2
1880 .. .. .	86244	689	598	1287	14·9
1881 .. .. .	94860	720	603	1323	13·9
1882 .. .. .	96220	705	671	1376	14·3
Total .....		4866	4329	9195	15·0

In each quarter of the past year the deaths were thus distributed :

	Male.	Female.	Total.	Per cent.
1st Quarter .....	192	189	381	27·7
2nd „ .....	168	151	319	23·2
3rd „ .....	177	152	329	23·9
4th „ .....	168	179	347	25·2
	705	671	1376	100·0

In each quarter of the past seven years the deaths were thus distributed :—

Year.	1st Qr.	2nd Qr.	3rd qr.	4th qr.	Total.
1876	406	339	293	313	1351
1877	330	324	266	292	1212
1878	366	322	329	337	1354
1879	398	327	266	301	1292
1880	364	333	314	276	1287
1881	369	354	307	293	1323
1882	381	319	329	347	1376
Total ...	2614	2318	2104	2159	9195
Per cent.	28·4	25·2	22·9	23·5	100·0

The influence of season is best shown by dividing the year into three periods according to the temperature; the following table shows the number of deaths in the past seven years which occurred during each period :—

	COLD.	Deaths.	Per cent.
Dec. to March	37 deg.—41 deg.	3398	37 0
	MODERATE.		
April, May, Oct., Nov.	41 deg.—57 deg.	2990	32·5
	HOT.		
June to Sept.	57 deg.—63 deg.	2807	30·5
		9195	100·0

The deaths at different groups of ages during the past year were as follows :

	Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and upwards.	Tot.
1st Quarter	78	45	17	20	88	133	381
2nd „	56	33	24	15	69	122	319
3rd „	65	42	18	18	85	101	329
4th „	70	34	22	13	70	138	347
	269	154	81	66	312	494	1376

The numbers dying at various groups of ages during the quarters of the past four years are given in the following table ; the winter months and the early spring are the most fatal periods. This table should be compared with Table V., where the temperature of each month is shown, and also the number of deaths in each month.

	Under 1 year.	1—5.	5—15.	15—25.	25—60.	60 and upwards.	Total.
4 years, 1879-82.							
1st Quarter	291	159	69	77	293	623	1512
2nd „	233	110	86	66	311	527	1333
3rd „	271	118	57	66	296	408	1216
4th „	211	98	62	62	282	502	1217
	1006	485	274	271	1182	2060	5278

The following table is a summary of Table III.; it shows the numbers dying in each year at different periods of life, and when the numbers living at each period are published in the new census returns the death-rates at various ages can be compared.

Year.	At all Ages.	Under 1 year.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 & up- wards.
1876	1351	252	158	64	64	331	482
1877	1212	218	86	69	61	316	462
1878	1354	261	127	65	60	310	531
1879	1292	231	98	57	75	280	551
1880	1287	267	134	76	68	270	472
1881	1323	239	99	60	62	320	543
1882	1376	269	154	81	66	312	494
Total ...	9195	1737	856	472	456	2139	3535
Per 10,000	10,000	1889	931	513	496	2326	3845

An approximate estimate is here given of the population in the combined district during the past year, and the death-rate in each group of ages is compared with that of England and Wales :—

	All ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
Population -	96,220	2610	9790	22,355	16,970	35,970	8525
Deaths -	1376	269	154	81	66	312	494
Death-rate -	14·3	103·0	15·7	3·6	3·8	8·6	57·9
Death-rate in England 1861-70.	22·4	180·4	36·3	6·3	7·2	14·0	67·7

#### MEAN AGE AT DEATH.

The 1376 persons who died in West Sussex last year lived 52,571·8 years, giving a mean age at death of 38·2 years; for males the mean age was 36·8 years, and for females 39·6 years. A slight correction must be made for all persons dying above one year of age; the entry of age in the register is always a little below the actual age; thus a man dying at any time between 60 and 61 would be entered as aged 60 years, when he might be really several months older.

Table IV, shows the mean age at death in each district for males and females; it is here summarised :—

#### Mean age at death in 1882.

	No. of Deaths.	Years lived.	Mean.	Corrected Mean:
Both sexes	1376	52,571·8	38·20	38·60
Males	705	26,001·6	36·88	37·27
Females	671	26,570·2	39·60	40·00



## ZYMOTIC DISORDERS.

Out of 1376 deaths from all causes in 1882, 164 were due to this class of disorders, or 1·7 deaths to every 1,000 persons living.

In 1876 the rate was 206 per 100,000 persons living.

1877	„	113	„	„
1878	„	165	„	„
1879	„	93	„	„
1880	„	198	„	„
1881	„	108	„	„
1882	„	170	„	„
Mean	.....	150	„	„

The above rates include all forms of zymotic disease. Throughout England and Wales the annual rate of mortality from the seven principal zymotic diseases alone has been during the past seven years 3·11, 2·71, 3·32, 2·44, 3·30, 2·24, and 2·64 per 1000, giving a mean annual rate of 2·82.

In this combined district the mean rate from the seven principal zymotic diseases alone has been 1·35 per 1000.

Table VI. shows the deaths and death-rate from these causes.

Whooping-cough and diarrhoea head the list, followed by diphtheria and scarlatina, measles and enteric fever.

Table VII. shows the mortality in 1882 in each month of the year. October, September, and August show the highest mortality, and January, March, and June the lowest.

Measles prevailed in the second and third quarters, scarlatina in the fourth quarter, diphtheria in the third and fourth quarters, whooping-cough was fatal throughout the year, and diarrhoea was frequent in the third and fourth quarters.

## INFANT MORTALITY.

There were during the past year 269 deaths under one year of age out of a total of 1376 deaths. There were 2973 births, so that the infant mortality, as measured by the number of deaths under one year of age to every 1000 children born, was 90 against a rate of 103, 85, 101, 87, 102, and 83, in the six preceding years.

The mean rate for the seven years is, therefore, 93 deaths to every 1000 births. Throughout England and Wales the infantile death-rate was equal to 141 per 1000 against 135, 153, and 130 in the three preceding years. This proportion of infant mortality averaged 146 per 1000 during the ten years 1872-81.

In each district the rate was as follows on the average of the past seven years :—

Steyning ... .. 103	Midhurst .. ... 89
Horsham ... .. 88	Westbourne ... .. 86
Petworth ... .. 84	Worthing ... .. 110
Thakeham ... .. 77	Littlehampton ... 95
East Preston ... .. 88	West Worthing ... 140

#### RAINFALL.

The rainfall for the past year at three places in the combined district is here shown :—

1882.	WORTHING.		HORSHAM. (T. W. Cowan, Esq.)		PETWORTH. (Rev. C. Holland.)	
	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.
Jan. ...	1·48	9	1·26	10	2·10	6
Feb. ...	1·60	12	1·07	9	2·46	8
March ...	1·06	11	1·54	14	0·89	6
April ...	2·69	19	3·05	17	3·81	12
May ...	1·15	12	1·44	14	1·51	9
June ...	2·41	21	2·37	22	2·95	16
July ...	2·44	17	3·27	19	3·36	15
Aug. ...	2·03	15	1·52	15	1·97	9
Sept. ...	2·45	11	3·32	11	2·72	11
Oct. ...	8·58	21	6·89	22	7·12	15
Nov. ...	3·83	21	2·89	19	3·58	22
Dec. ...	2·98	22	2·68	20	3·22	16
Total ...	32·70	191	31·30	192	35·69	145

The amount of rainfall in three different places is here given for

a term of years ; it shows that more rain falls in the Weald of Sussex than along the sea coast :—

Year.			Worthing. inches.	Petworth. inches.	Horsham. inches.
1875	...	...	30·57	—	34·14
1876	...	...	30·14	—	37·72
1877	...	...	35·39	—	44·89
1878	...	...	29·42	—	32·68
1879	...	...	32·13	—	43·68
1880	...	...	32·91	34·10	46·38
1881	...	...	29·97	29·53	34·89
1882	...	...	32·70	31·30	35·69

#### HOURS OF SUNSHINE.

The following figures are taken from the Kew records ; they show approximately the hours of bright sunshine in this district during the past five years :—

		1878. hours.	1879. hours.	1880. hours.	1881. hours.	1882. hours.
1st Quarter	...	141	138	235	176	203
2nd „	...	500	352	524	559	571
3rd „	..	451	355	487	526	509
4th „	...	158	138	168	245	215
Total	...	1250	983	1414	1506	1498

The hours of bright sunshine at the Greenwich Observatory during 1882 amounted to 1245, and the sun was above the horizon 4446 hours. A record of the amount of sunshine is also kept at Glynde, near Lewes. During the last four years the hours have been respectively 1038, 1323, 1445 and 1559 ; these figures correspond pretty closely with those recorded at Kew, but they are much in excess of the Greenwich observations.

#### TEMPERATURE.

The figures here given are taken chiefly from the published



weekly and monthly records of the Meteorological Office so far as they affect the south of England :—

	1878.			1879.			1880.			1881.			1882.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Jan .....	56	22	41·3	57	15	33·8	57	13	35·0	54	4	31·6	54	24	41·1
Feb. ...	61	24	41·0	53	17	38·0	55	9	40·5	53	23	39·0	57	22	43·0
March ..	59	24	44·6	64	21	40·8	65	22	44·8	62	22	43·0	66	26	46·2
April ...	66	27	48·5	62	25	44·0	67	32	47·8	69	26	47·3	65	30	49·0
May ...	74	36	55·0	69	24	47·8	78	28	50·8	76	28	53·5	74	33	54·1
June ...	91	36	59·8	71	39	56·0	86	33	56·4	87	35	58·4	77	37	57·2
July ...	88	43	63·8	75	44	58·0	79	44	61·5	95	36	63·5	77	43	60·5
Aug. ...	81	46	63·0	80	44	61·5	79	44	63·3	84	38	59·3	84	43	61·0
Sept. ...	75	31	58·6	74	36	57·0	87	40	61·6	75	35	56·2	71	33	55·8
Oct. ...	75	30	51·8	67	28	50·8	71	26	49·8	63	21	46·0	67	28	51·1
Nov. ...	54	24	40·5	58	17	41·8	60	16	43·6	64	28	49·5	61	21	44·5
Dec. ...	56	8	33·8	53	10	32·8	58	27	43·8	55	20	40·5	56	12	38·8

Comparing the figures given above with the data obtained from 13 years observations, as determined by Mr. Buchan, it will be found that the mean temperature for the past four years has been below the average. The following summary shows that 1879 was the coldest of the series :—

	1878.	1879.	1880.	1881.	1882.
	Weeks.	Weeks.	Weeks.	Weeks.	Weeks.
Above the average .....	22	3	18	12	25
Below the average .....	25	46	28	37	20
Average .....	5	3	6	3	7
	—	—	—	—	—
	52	52	52	52	52

A comparison of this table, with the amount of sunshine and rainfall in each year, will show how dark and gloomy was the year 1879 ; since that period the weather has been gradually improving ; last year was cooler than 1880. but there was less rain and more sunshine.

The following table is taken from observations made by W. J.



TABLE 1.—Showing the Births in each District in 1882.

District.	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Year.			Rate per 1000.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	
Steyning.....	75	65	140	86	74	160	80	59	139	75	68	143	316	266	582	34.8
Horsham .....	75	57	132	65	49	114	64	49	113	69	59	128	273	214	487	31.0
Petworth .....	35	38	73	21	32	53	43	26	69	40	40	80	139	136	275	28.9
Thakeham .....	45	32	77	31	20	51	29	34	63	32	28	60	137	114	251	30.3
East Preston ...	47	40	87	35	34	69	36	28	64	25	21	46	143	123	266	32.3
Midhurst .....	63	62	125	60	54	114	54	50	104	49	46	95	226	212	438	31.0
Westbourne ...	35	32	67	25	17	42	30	24	54	24	26	50	114	99	213	28.6
Worthing .....	56	49	105	46	32	78	43	46	89	46	37	83	191	164	355	30.7
Littlehampton	16	17	33	10	9	19	16	11	27	4	11	15	46	48	94	23.6
West Worthing	2	—	2	3	—	3	2	4	6	—	1	1	7	5	12	15.8
TOTAL .....	449	392	841	382	321	703	397	331	728	364	337	701	1592	1381	2973	30.9
In 1876 .....	323	318	641	298	295	593	305	311	616	327	263	590	1253	1187	2440	29.8
In 1877 .....	300	338	638	365	323	688	298	274	572	346	305	651	1309	1240	2549	30.8
In 1878 .....	339	320	659	360	300	660	320	319	639	309	314	623	1328	1253	2581	30.8
In 1879 .....	329	332	661	319	320	639	359	277	636	372	326	698	1379	1255	2634	31.1
In 1880 .....	319	363	682	308	352	660	330	328	658	320	294	614	1277	1337	2614	30.3
In 1881 .....	375	347	722	397	338	735	368	381	749	323	339	662	1463	1405	2868	30.2



TABLE II.—Showing the ages at death of 1376 persons in the Combined Sanitary District in 1882.

Sanitary District.	Total.	-1	-2	-5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90	-100	100 & upds
Steyping Rural ...	M. 129	29	9	13	7	2	6	2	7	5	9	16	14	10	—	—
	F. 122	29	9	9	6	3	6	4	12	6	7	6	13	11	1	—
Horsham " ...	M. 106	29	6	6	1	2	8	—	7	6	7	14	12	8	—	—
	F. 92	12	2	1	6	5	4	1	9	7	9	11	13	10	2	—
Petworth " ...	M. 65	10	1	2	2	—	6	1	3	3	8	13	9	7	—	—
	F. 60	7	3	2	2	2	2	4	3	2	7	4	13	8	1	—
Thakeham " ..	M. 52	6	4	3	1	1	1	—	2	4	2	11	9	7	1	—
	F. 51	3	2	3	1	1	3	—	5	4	5	7	12	4	1	—
East Preston " ...	M. 54	11	4	4	1	1	3	2	—	4	3	9	6	—	1	—
	F. 43	4	4	2	1	—	2	2	—	4	5	4	7	7	1	—
Midhurst " ...	M. 116	27	9	5	5	3	5	5	6	8	11	13	10	8	1	—
	F. 124	26	8	6	11	2	5	3	6	8	6	16	19	7	1	—
Westbourne " ...	M. 58	12	2	1	3	2	2	—	4	3	4	6	16	3	—	—
	F. 60	12	5	4	1	2	2	3	4	1	5	7	6	5	3	—
Worthing Urban ..	M. 78	15	4	4	2	—	3	2	6	12	5	13	9	3	—	—
	F. 82	19	3	3	—	1	4	1	9	4	2	16	14	5	1	—
Littlehampton " ...	M. 41	9	4	3	2	—	1	1	1	1	4	3	7	3	2	—
	F. 33	7	2	2	—	—	2	1	3	4	3	3	4	2	—	—
West Worthing " ...	M. 6	2	—	—	—	—	—	—	—	—	—	2	—	—	—	—
	F. 4	—	—	—	—	2	1	—	—	—	—	1	—	—	—	—
Total... ..	M. 705	150	43	41	24	11	35	13	41	46	53	100	92	51	5	—
	F. 671	119	38	32	28	18	31	19	51	40	49	75	101	59	11	—
Total, both sexes...	1376	269	81	73	52	29	66	32	92	86	102	175	193	110	16	—

TABLE III.—Showing the Ages at Deaths in the Seven Years, 1876-82.

Year.	Population.	Total.	1	- 2	- 5	-10	-15	-25	-30	-40	-50	-60	-70	-80	-90	-100	100 & over
1876 ..	81,703	M. 725 F. 626	135 117	42 29	45 42	22 12	15 15	41 23	16 33	38 36	45 46	64 53	93 58	105 89	59 66	5 7	..
1877 ..	82,610	M. 642 F. 570	127 91	20 26	19 21	20 19	14 16	30 31	29 25	40 46	37 34	58 47	86 81	96 73	59 51	7 9	..
1878 ..	83,627	M. 690 F. 664	150 111	33 42	29 23	16 23	8 18	29 31	17 28	40 35	34 33	60 63	83 86	114 102	74 59	3 9	..
1879 ..	84,648	M. 695 F. 597	130 101	27 22	19 30	16 21	10 10	35 40	20 9	37 24	46 41	52 51	102 69	135 103	59 67	7 8	..
1880 ..	86,244	M. 689 F. 598	156 111	42 42	25 25	20 25	12 19	28 40	18 15	29 29	36 28	73 42	91 65	113 95	40 60	6 2	..
1881 ..	94,860	M. 720 F. 603	151 88	29 24	28 18	20 21	9 10	34 28	18 25	44 38	49 36	56 54	91 97	106 99	74 60	11 4	..
1882 ..	96,220	M. 705 F. 671	150 119	43 38	41 32	24 28	11 18	35 31	13 19	41 51	46 40	53 49	100 75	92 101	51 59	5 11	..
	Total .....	M. 4866 F. 4329	999 738	236 223	206 191	138 149	79 106	232 224	131 154	269 259	293 258	416 359	646 531	761 662	416 422	44 50	.. 3
	Total, both sexes	9195	1737	459	397	287	185	456	285	528	551	775	1177	1423	838	94	3
	Per 10,000 ..	10,000	1889	499	432	312	201	496	310	574	600	843	1280	1548	911	102	3

TABLE IV.—Showing the Mean age at Death in 1882.

District.	No. of Deaths	Years lived.	Mean.	Male and Female Mean.
Steyning .....	251	8014.1	31.9	M. $4238.4 \div 129 = 32.8$ F. $3775.7 \div 122 = 30.9$
Horsham .....	198	7571.6	38.2	M. $3561.8 \div 106 = 33.6$ F. $4009.8 \div 92 = 43.5$
Petworth .....	125	5735.7	45.8	M. $2939.1 \div 65 = 45.2$ F. $2796.6 \div 60 = 46.6$
Thakeham .....	103	4943.8	48.0	M. $2461.1 \div 52 = 47.3$ F. $2482.7 \div 51 = 48.6$
East Preston ...	97	3810.1	39.2	M. $1785.8 \div 54 = 33.0$ F. $2024.8 \div 48 = 42.0$
Midhurst .....	240	8179.8	34.0	M. $3858.2 \div 116 = 33.2$ F. $4321.6 \div 124 = 34.8$
Westbourne ..	118	4633.9	39.2	M. $2409.8 \div 58 = 41.6$ F. $2224.6 \div 60 = 37.0$
Worthing .....	160	6239.7	39.0	M. $2915.0 \div 78 = 37.3$ F. $3324.7 \div 82 = 40.5$
Littlehampton ..	74	3025.7	40.9	M. $1534.0 \div 41 = 37.4$ F. $1491.7 \div 38 = 39.2$
West Worthing	10	417.4	41.7	M. $299.4 \div 6 = 49.9$ F. $118.0 \div 4 = 29.5$
Total .....	1376	52,571.8	38.2	
Male .....	705	26,001.6	36.8	
Female .....	671	26,570.2	39.6	



TABLE V.—Showing the Deaths in each Month in the Seven Years, 1876-82.

MONTH.	1876	1877	1878	1879	1880	1881	1882	Total.	Average Temp.
January . . . . .	116	103	137	150	126	125	132	889	38.9
February . . . . .	144	115	126	119	129	118	108	859	39.7
March . . . . .	146	112	103	129	109	126	141	866	41.5
April . . . . .	124	111	115	130	121	131	98	830	47.2
May . . . . .	120	104	98	113	115	117	118	785	52.7
June . . . . .	95	109	109	84	97	106	103	703	59.8
July . . . . .	78	88	100	75	92	93	100	626	62.5
August . . . . .	131	84	98	92	106	110	112	733	61.9
September . . . . .	84	94	131	99	116	104	117	745	57.5
October . . . . .	107	96	103	82	85	109	100	682	50.9
November . . . . .	102	86	103	88	100	98	116	693	42.8
December . . . . .	104	110	131	131	91	86	131	784	40.8
TOTAL . . . . .	1351	1212	1354	1292	1287	1323	1376	9195	—

The average temperature is taken from the records at Greenwich for the Twenty Years, 1849-68.

TABLE VI.—Showing the Deaths and Death-rate from Zymotic Diseases in the Seven Years, 1876-82.

Sanitary District.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Continued Fevers.			Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.	Rate per 1000 living.
						Typhus.	Enteric or Typhoid.	Other or Doubtful.						
Steyning Rural ..	..	2	4	8	23	..	3	2	1	1	..	..	50	1.9
Horsham ..	..	3	1	5	2	..	1	1	1	1	..	..	17	1.0
Petworth ..	..	..	..	1	3	..	..	..	..	1	..	..	8	0.8
Thakeham ..	..	1	1	2	..	..	1	..	..	..	..	..	6	0.7
East Preston ..	..	..	..	1	5	..	1	..	1	2	..	..	7	0.8
Midhurst ..	..	5	7	9	6	..	1	..	1	1	1	..	32	2.2
Westbourne ..	..	1	1	8	4	..	1	..	..	1	..	1	18	2.4
Worthing Urban ..	..	..	1	1	7	..	1	..	..	..	..	..	18	1.5
Littlehampton ..	..	2	..	..	3	..	1	..	..	..	..	..	6	1.5
West Worthing ..	..	2	..	..	..	..	..	..	..	..	..	..	2	2.6
Total .....	—	16	15	35	53	—	10	3	4	7	1	1	164	1.7
In 1876 .....	3	17	47	14	27	1	11	4	1	4	..	5	169	2.0
In 1877 .....	1	5	18	15	12	1	8	3	6	3	1	4	94	1.1
In 1878 .....	2	9	6	13	40	2	10	1	1	3	2	6	138	1.6
In 1879 .....	..	9	2	22	17	..	9	2	4	3	2	1	79	0.9
In 1880 .....	..	23	9	12	55	..	15	1	1	3	..	3	171	1.9
In 1881 .....	1	1	15	25	10	..	12	1	7	7	2	5	103	1.0
Total in the 7 years.	7	80	112	136	214	4	75	15	24	30	8	25	918	1.5

TABLE VII.—Showing the Zymotic Deaths in each Month in the year 1882.

	January.	February.	March.	1st Quarter.	April.	May.	June.	2nd Quarter.	July.	August.	September.	3rd Quarter.	October.	November.	December.	4th Quarter.	Year.
Small-pox . . . . .	..	..	..	..	.. 4	.. 1	.. 2	.. 7	.. 3	.. 4	.. 2	.. 9	..	..	..	..	.. 16
Measles . . . . .	..	..	..	..	.. 1	..	.. 1	.. 2	..	.. 1	.. 1	.. 2	..	..	.. 3	..	.. 15
Scarlatina . . . . .	1	..	..	3	.. 3	.. 3	.. 3	8	.. 3	.. 4	.. 4	11	.. 5	3	4	10	35
Diphtheria . . . . .	..	2	1	16	.. 2	4	2	9	3	2	9	14	8	4	2	14	53
Whooping-cough	3	8	5	..	3	..	..	..	..	..	..	..	..	..	..	..	..
Cont. Fevers. { Typhus . . . . . Enteric . . . . . Other forms	2	1	..	3	..	.. 1	..	1	.. 3	..	1	4	2	..	..	2	10
	..	..	2	2	..	1	1	1	.. 1	..	3	8	2	2	3	7	3
	1	..	..	1	..	2	1	3	.. 1	4	2	2	2	..	..	..	19
Diarrhoea . . . . .	..	..	..	2	..	..	..	..	.. 1	..	2	2	..	..	..	..	4
Rheumatic Fever.	..	3	2	3	.. 1	..	1	2	.. 1	1	2	2	..	..	..	..	7
Erysipelas . . . . .	..	..	..	..	.. 1	..	..	1	..	..	..	..	..	..	..	..	1
Pyæmia . . . . .	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Peurperal Fever..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL . . . . .	8	14	10	32	12	12	10	34	14	16	22	52	23	11	12	46	164



TABLE VIII.—Showing the Deaths and Death-rate from all causes and from various causes in each district during the Eight years 1875-82.

Sanitary District.	Per 100,000 living at all ages.					Mean annual number of deaths.
	Mean annual death-rate from all causes.	Mean annual Zymotic death-rate.	Mean annual Phthisis death-rate.	Mean annual Lung-Disease death-rate.	Mean annual Heart-Disease death-rate.	
Steining Rural - - -	1485	192	162	207	101	232·3
Horsham " - - -	1437	129	158	252	102	211·7
Petworth " - - -	1602	110	154	284	135	155·7
Thakeham " - - -	1557	165	144	282	129	129·6
East Preston " - - -	1592	151	167	201	165	123·7
Midhurst " - - -	1562	134	159	192	170	215·4
Westbourne " (two years) - - -	1405	147	121	221	161	104·5
Worthing Urban - - -	1656	190	172	202	161	165·1
Ditto (excluding visitors) - - -	1493	173	147	181	147	149·3
Littlehampton Urban - - -	1495	114	184	223	112	55·8
Ditto (excluding visitors) - - -	1402	105	157	216	106	52·3
West Worthing Urban - - -	899	87	65	22	131	5·1

TABLE IX.--Showing the Deaths and Death-rate from all causes and from various causes in the combined District in the Seven years 1876-82.

Year.	Annual Number of Deaths.					Population.	Annual Rate per 100,000 living.				
	All Diseases.	Zymotic Disease.	Phthisis.	Lung-Disease.	Heart-Disease.		All Diseases.	Zymotic Disease.	Phthisis.	Lung-Disease.	Heart-Disease.
1876	1351	169	139	176	117	81703	1654	206	170	215	143
1877	1212	94	152	138	111	82610	1467	113	184	167	134
1878	1354	138	151	213	98	83627	1619	165	180	254	117
1879	1292	79	143	216	134	84648	1526	93	168	255	158
1880	1287	171	129	204	89	86244	1492	198	149	236	103
1881	1323	103	117	193	128	94860	1396	108	123	203	135
1882	1376	164	131	191	120	96220	1430	170	136	198	124
Total	9195	918	962	1331	797		1512	150	158	218	130

TABLE X.—Showing the Causes of Death in 1882.

Causes of Death.	Steyning R.S.D.	Horsham R.S.D.	Petworth R.S.D.	Thakeham R.S.D.	East Preston R.S.D.	Midhurst R.S.D.	Westbourne R.S.D.	Worthing U.S.D.	Littlehampton U.S.D.	West Worthing U.S.D.	Total.		Total, both sexes.
											M.	F.	
All Causes.....	251	198	125	103	97	240	118	160	74	10	705	671	1376
Zymotic Diseases.....	50	17	8	6	7	32	18	18	6	2	71	93	164
Phthisis.....	25	21	12	11	8	21	11	17	5	..	63	68	131
Disease of the Brain.....	32	32	23	20	10	33	15	22	13	1	113	88	201
Heart.....	18	12	12	8	14	19	13	19	4	1	62	58	120
Lungs.....	20	28	17	20	14	36	18	21	16	1	103	88	191
Digestive Organs.....	17	11	11	9	2	11	9	13	5	2	44	46	90
Urinary.....	7	2	1	1	2	5	3	7	..	1	21	8	29
Uterine.....	..	1	..	1	..	1	..	1	..	..	..	4	4
Childbirth.....	4	2	..	..	1	1	3	3	2	..	..	16	16
Infantile Debility and Atrophy.	15	16	3	1	9	22	4	10	1	1	51	31	82
Premature Birth.....	7	11	2	..	1	8	3	4	4	..	23	17	40
Old Age.....	24	18	22	7	16	23	10	10	13	1	68	76	144
Accidents.....	5	10	1	4	1	5	2	3	1	..	22	10	32
Suicides.....	3	1	..	..	2	4	..	1	..	..	8	3	11
Other causes.....	24	16	13	15	10	19	9	11	4	..	56	65	121



TABLE XI.--Showing the Accidental Deaths in the Six years  
1877-82,

Mode of Death.	Steyning R. s. D.	Horsham R. s. D.	Petworth R. s. D.	Thakeham R. s. D.	East Preston R. s. D.	Midhurst R. s. D.	Westbourne R. s. D.	Worthing U. s. D.	Littlehampton U. s. D.	West Worthing U. s. D.	Total.	Total both sexes.
By Drowning.....	M ... F 1	M .. F ..	M .. F ..	M 1 F 1	M .. F ..	M .. F ..	M 1 F ..	M 1 F 1	M 1 F ..	M .. F ..	M 3 F 1	M 4 F 3
" Suffocation ...	M 2 F 1	M 4 F 2	M .. F ..	M 2 F 1	M 1 F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M 10 F 4	M 14 F 3
" Falls.....	M 1 F ..	M 1 F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M 2 F ..	M 2 F ..
" Being run over	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..
" Railway .....	M .. F ..	M 1 F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M 2 F ..	M 2 F ..
" Shooting .....	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M 1 F ..	M 1 F ..
" Shock,(bee stings)	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..
" Burns & scalds.	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..
" Machinery ...	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..	M .. F ..
TOTAL .....	3 2	8 2	1	2 2	1	4 1	1 1	2 1	1	..	22 10	32
In 1876 .....	..	..	..	..	..	..	..	..	..	..	..	..
" 1877 .....	9	2 1	2 2	2	4	3	..	1	..	..	23	27
" 1878 .....	6	2 2	2 2	1 1	2	2	..	..	..	..	18	26
" 1879 .....	2	7 4	6	1 2	4	1	..	1	1	..	27	37
" 1880 .....	1	5 1	3	4	2	1	..	1	..	..	23	25
" 1881 .....	5	4 1	2	4	3	2	1	2	..	..	19	28

TABLE XII.—Showing the Deaths by Suicide in the Eight Years, 1875-82.

Mode of Death.	Steyning R.S.D.		Horsham R.S.D.		Petworth R.S.D.		Thakeham R.S.D.		East Preston R.S.D.		Midhurst R.S.D.		Westbourne R.S.D.		Worthing U.S.D.		Littlehampton U.S.D.		West Worthing U.S.D.		Total.		Total, both sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
By Shooting .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
By Drowning .....	3	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	4	2	6
By Poisoning ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	2	...	2
By Hanging .....	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
By Railway .....	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1
Total .....	3	...	1	...	...	...	...	...	1	1	3	1	...	...	1	...	...	...	...	...	8	3	11
In 1875 ..	1	1	3	...	2	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	9	2	11
In 1876 ..	1	...	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	5	...	5
In 1877 ..	2	...	3	...	...	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...	9	2	11
In 1878 ..	1	...	1	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	5	...	5
In 1871 ..	3	1	2	...	...	...	...	...	...	...	2	2	...	...	1	...	...	...	...	...	9	5	14
In 1880 ..	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	6	...	6
In 1881 ..	2	...	2	...	3	...	2	...	1	...	1	1	...	...	2	...	...	...	...	...	14	1	15





TABLE A.—Showing the Deaths during the year 1882, in the Combined Sanitary Districts, and showing also the Population of

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							12
	Census 1881	Estimated to middle of 1882		At all Ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
Steyning Rural Sanitary District.	16263	16700	582	239	58	40	18	11	49	63	Under 5 upwds.
Horsham Rural Sanitary District.	15487	15670	487	206	41	15	14	13	48	175	Under 5 upwds.
Petworth Rural Sanitary District.	9563	9500	275	125	17	8	6	8	31	55	Under 5 upwds.
Thakeham Rural Sanitary District.	8295	8280	251	102	9	12	4	4	22	51	Under 5 upwds.
East Preston Rural Sanitary District.	8058	8230	266	108	16	14	3	5	27	43	Under 5 upwds.
Midhurst Rural Sanitary District.	13964	14100	438	240	53	28	21	10	53	75	Under 5 upwds.
Westbourne Rural Sanitary District.	7413	7450	213	118	24	12	8	4	24	46	Under 5 upwds.
Worthing Urban Sanitary District.	10976	11550	355	155	34	14	3	7	40	57	Under 5 upwds.
Littlehampton Urban Sanitary District.	3894	3980	94	71	15	11	2	3	18	22	Under 5 upwds.
West Worthing Urban Sanitary District.	688	760	12	10	2	—	2	1	—	5	Under 5 upwds.
TOTALS .....	94601	96220	2973	1374	269	154	81	66	312	492	Under 5 upwds.
Deaths occurring outside the district among persons belonging thereto .....				22	1	—	—	1	4	16	Under 5 upwds.
Deaths occurring within the district among persons not belonging thereto .....				46	2	3	1	3	15	22	Under 5 upwds.

dict of WEST SUSSEX, classified according to Diseases, Ages, and Localities and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

Scarlatina	Diphtheria	Group (not "spasmodic")	Whooping Cough.	Cont. Fevers			Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Phthisis	Bronchitis, Pneumonia & Pleurisy	Heart Disease	Injuries	Other Cases
				Typhus	Enteric or Typhoid	Other or Doubtful												
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
2	3		23				5			1					12		1	49
2	5				3	2	1		1					22	8	17	7	73
1	2		2												10		1	37
	3				1	1	1		1	3				23	18	12	10	77
			3				2								5			15
	1						1			1				12	12	12	1	60
1	1								1						7			10
	1				1									11	13	8	3	44
			5												6			19
	1				1									8	9	16	3	40
2	3		6							1					19			45
5	6				1		1		1	1				21	17	19	9	78
	4		4				1				1				8		1	16
1	4				1					1				11	10	13	1	40
1			7				6								7		2	25
	1				1		1					1		17	14	19	2	51
			3												9			12
					1									5	7	4	1	27
																		2
															1	1		4
7	13		53				14		1	2	1				83		5	230
8	22				10	3	5		3	6		1		130	109	121	37	494
																		1
														3		2	1	15
															2			1
										1				5	6	6	2	21

TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the  
Sanitary District of WEST SUSSEX, classified by Localities.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE SANITARY DISTRICT OF WEST SUSSEX, CLASSIFIED BY LOCALITIES.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
Steyning R. S. D. ....	Under 5 5 upwds.		3 5	9 12			10 5
Horsham R. S. D. ....	Under 5 5 upwds.			1 5			5 2
Petworth R. S. D. ....	Under 5 5 upwds.			1 4	1 4		1 1
Thakeham R. S. D. ....	Under 5 5 upwds.			2 1			
East Preston R. S. D. ....	Under 5 5 upwds.		2 16				9 2
Midhurst R. S. D. ....	Under 5 5 upwds.		14 23	10 24	2 8		9 19
Westbourne R. S. D. ....	Under 5 5 upwds.		6 10		4 11		9 8
Worthing U. S. D. ....	Under 5 5 upwds.						1 1
Littlehampton U. S. D. ....	Under 5 5 upwds.						3
West Worthing U. S. D. ....	Under 5 5 upwds.						
Totals .....	Under 5 5 upwds.		25 58	23 48	7 24		57 28

Sources of information :— In Workhouses and Workhouse Infirmaries, 28  
Out-Patients



Medical Officer of Health, during the year 1882 in the Combined  
rding to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS AGE.									
rs.	Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record
21	22	23	24	25	26	27	28		
		5			3				
		3			1				
		22			6				
		3							
1		8			1				
1		3		1	1				
		6							
	1	4			5				
	3	5							
	6	17		5	2				
		4		1	5				
		2							
		4			3				
	3	19			1				
	7	67		7	26				

ng Out-door Paupers, 2980. As In-Patients of Hospitals, 62. As  
pitals, 1221.

